

KINGIA

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Department of Conservation and Land Management

Cover

Kingia australis R.Br. - Black Gin. Robert Brown named the genus *Kingia* in honour of his friend, the surveyor-explorer Captain Phillip Parker King and in memory of Captain Philip Gidley King, a governor of New South Wales.

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Department of Conservation and Land Management,
Western Australia

INSTRUCTIONS TO AUTHORS

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References. References are cited in the text by author and date. All references in the text must be cited at the end of the paper with the names of the authors in alphabetical order. In the text the names of two co-authors are linked by "&", for three or more the first author is followed by *et al.* The titles of papers and the first and last page must be cited. Names of Journals, bulletins and reports should be given in full. They should not be underscored or put into italics.

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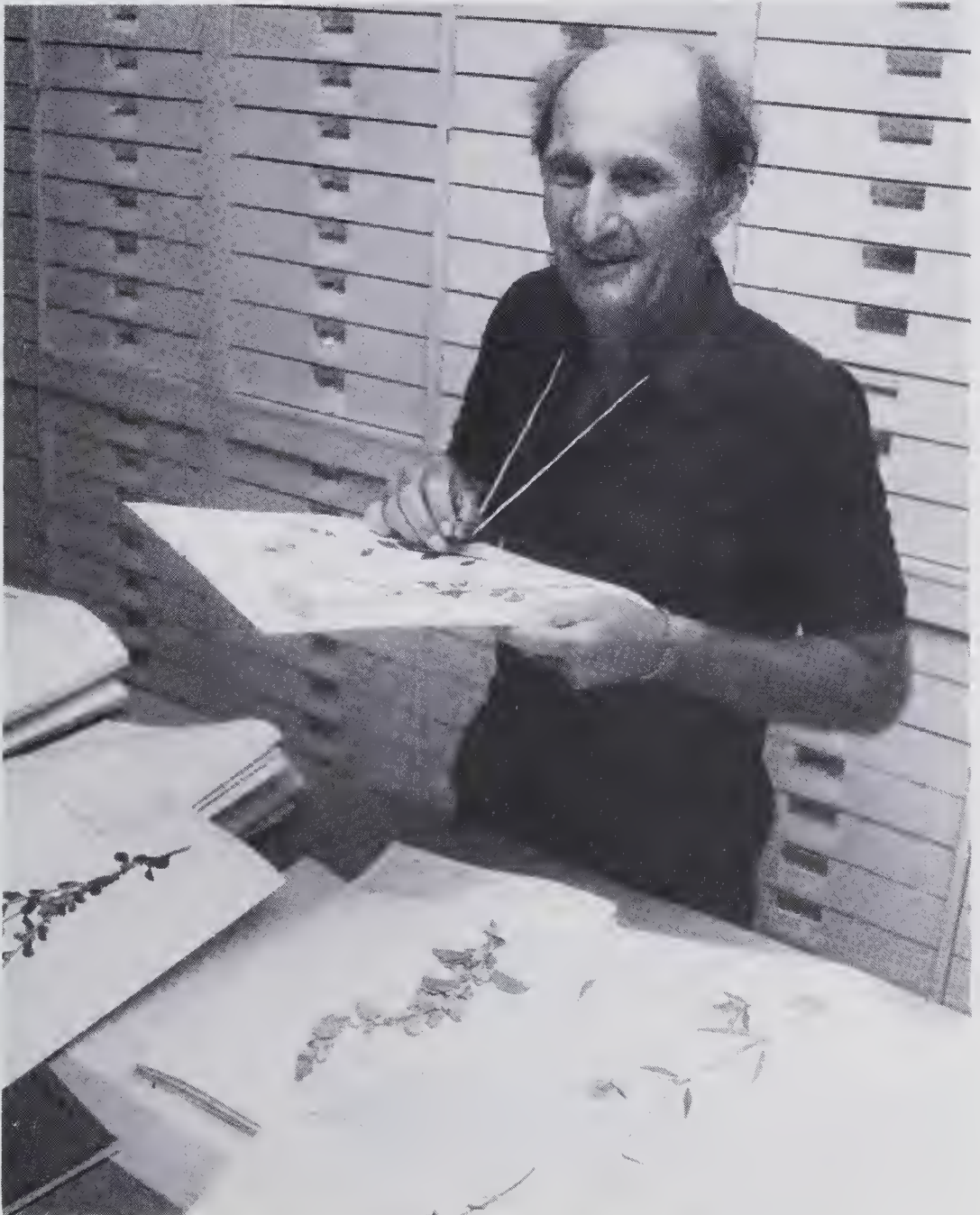
Figures. Figures should be submitted in their final size for printing. Numbering should follow a single sequence and include all maps, illustrations and photographs. They should be numbered in the order cited in the text. In the text and in the captions use the style of "Figure 1". Authors should indicate where the figures are to be inserted into the text.

Voucher specimens. It is suggested that botanical names central to the objective of the paper be supported by specimens deposited in a recognised herbarium and that the institution be indicated in the paper. Collecting numbers of specimens whose determination is uncertain should be cited in the paper.

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This issue of **KINGIA** is dedicated
to the memory of
KENNETH RAYMOND NEWBEY
1936-1988



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Kenneth Raymond Newbey 1936-1988

Ken Newbey was a dedicated botanist, an outstanding plant collector, and a concerned environmentalist who contributed extensively to the cause of conservation.

Ken was born at Katanning, Western Australia. When he was two years old his family moved to a farm at Ongerup where he lived for the rest of his life. He was educated first at the tiny school of West Ongerup and later boarded in Albany to attend the State High School where he achieved good marks in mathematics and science.

The Albany headmaster took the unusual step of writing to his parents to recommend that he stay on at school, but Ken was determined to be a farmer as soon as possible. He left school at 15 after completing the Junior Certificate examination.

On the family farm there was much to be done, clearing, fencing, dam-building, cropping and working with sheep. In those early days most time was spent on clearing the land for agriculture which involved months of hand-picking mallee roots. His father taught him, by example, to work long hours on monotonous tasks.

Ken's interest in plants began in 1959 when he noticed an advertisement in one of the rural newspapers offering to purchase seeds of a few native plant species. Although he then knew little of botanical names, he did recognize two of those listed and knew he could obtain seed. The motivation at this point was money for books as he was an avid reader.

Ken's interest in botany rapidly deepened. When he tried to discover more about some of the other plants he had observed while seed collecting, he learned that one of the first five he enquired about had not previously been collected. A new world opened up. Ken began to study the flora of his local area and quickly learned how to collect usefully. The Curator of the Western Australian Herbarium, Bob Royce, gave him much advice and encouragement. Then Ken met Alf Gray, an ex-forester who, ahead of his time, recognized the untapped potential of the Australian flora. Ken accompanied Alf on several trips to the wheatbelt and goldfields which proved an intensive learning experience for him. Family holidays were often orientated to Ken's new enthusiasm to study and explore the State's flora, soils and landscapes.

On the farm at Ongerup he established an arboretum, later a nursery, and began to sell seeds and seedlings. But his interest was always more in the sharing of ideas and methods, namely in choosing the right plant for the job, as well as the importance of understanding local conditions of soils and rainfall when selecting plants for cultivation. At this stage he produced a newsletter, and not only seeds but also information, travelled to California, Hawaii, New Zealand and Israel, as well as to many parts of eastern Australia. In 1968 he completed the first of two parts of *Western Australian plants for horticulture* published by the Society for Growing Australian Plants. As a result friendships developed between Ken and many members of that Society, several of whom were in the nursery business or were specialists in particular plant groups. In Spring there would be a continual stream of visitors who came from the eastern states and from farther afield to see the arboretum and to discuss Australian plants. Ken's time and knowledge were always freely given as it was a deliberate one-man effort to promote intelligent horticultural use of the Western Australian flora.

The Ongerup Conservation Organization (founded in 1970) and the Fitzgerald National Park Association (founded in 1971) were both deeply involved in the protection of the Fitzgerald Reserve from mining. Ken was the information-base and the major instigator, organizer, and co-ordinator for these groups. His involvement kept the campaign positive by emphasizing the high flora value of the Reserve, the need to proceed with the 1969 recommendation of the government appointed Reserves Advisory Council to declare it a National Park, and to undertake further study of the area. He was insistent on the need to campaign with facts, not emotions, and to inform and educate at all necessary levels. He perfected the personal low-key approach which was successful because of his willingness to share information and the soundness of his knowledge along with his unquestionable integrity.

In March 1972 Ken suffered a severe attack from a heart virus which left him too weak to continue with the farmwork which was his livelihood. He therefore resumed formal studies when he was well enough and matriculated in 1973. At the same time he earned some money as a mail man which afforded him an opportunity for making a detailed study of the plants encountered on his mail run. With the aid of a grant from CSIRO Science and Industry Endowment Fund he launched into an enormous ecological study to map and describe plant associations, incorporating geology, geomorphology and soils as well as detailed plant information, covering 2,500 square miles between Ongerup and Ravensthorpe. This project was incorporated into a Master of Philosophy degree at Murdoch University, completed in 1979. Ken was one of the first non-graduate students accepted by Murdoch University into a postgraduate degree course.

After completing his degree Ken undertook contract work as a plant ecologist and as a botanist, notably in the goldfields, south coast and Pilbara areas. Concurrently, he played a major role in the campaign to slow the release of land for farming in Western Australia and to improve the processing involved. He became a kind of translator, making scientific data available to land managers and communicating results and implications of research to the local community on the one hand, and involving the local community in research, in planning and in management decisions on the other. He wrote a manual on recording oral history, a book on trees on farms, and a geology text for local schools. He was particularly interested in the development of the concept of total landscape planning.

He was an inaugural committee member of the Fitzgerald Biosphere Project. Many of this organization's aims were synchronous with those Ken had been developing over the years. He was awarded a Churchill Fellowship in 1987 for the further study of total landscape planning and for providing better information more effectively to "grass-roots" land managers. While he was on the study tour his health, which had already been declining, deteriorated rapidly and he died in Perth shortly after returning to Western Australia.

Over his 29 years as a collector / botanist, Ken made about 12000 plant collections. These are deposited at the Western Australian Herbarium. This collection is an excellent representation of the vascular flora of the south coast between Albany and Esperance. It also contains many specimens from the southern half of the wheatbelt and parts of the goldfields, as well as some from the northern wheatbelt and further inland. In addition there are about 2000-3000 specimens from the Pilbara. Ken retained, for his own private herbarium, duplicates of about 5000-6000 of his collections. These, together with his field books and some photographic slides of the flora, were bequeathed to the Western Australian Herbarium. While the field books and slides will be retained at the Western Australian Herbarium (PERTH), a large proportion of the specimens from his private collection have been lodged at Department of Conservation and Land Management regional herbaria at Albany and Karratha where they will be available for scientific and consultative purposes.

Ken was a most discerning collector, he had an excellent memory for plants and an eye for the unexpected. Consequently, his collection includes many rare and unnamed species. The standard of

his specimens is very high and his labels usually contain comprehensive information on habit and habitat. Not unexpectedly, Newbey specimens have frequently been selected as types. His name is perpetuated in a number of plant species, namely, *Acacia newbeyi* Maslin, *Grevillea newbeyi* McGillivray, *Eucalyptus newbeyi* D.J. & S.G.M. Carr and *Thysanotus newbeyi* Brittan.

Ken's intimate knowledge of the south-western flora greatly benefitted many herbarium botanists. For example, his assistance in providing the second author with not only excellent specimens but also with distribution and ecological data substantially helped *Acacia* research. His *Acacia* collections total about 1500, of which 19 have been selected as types. Often he would recollect species to provide additional critical material, especially fruiting. His keen eye for detail frequently highlighted differences between plants which often led to new taxa being described. Through personal discussions much useful information was gained on the distribution of species, their ecological preference and the potential conservation value.

Ken had so much ability in so many directions. He had an enormous capacity for work, a passion for the flora and a remarkable ability to communicate with a wide spectrum of people. In his view, knowledge was useless unless shared. Ken Newbey's legacy to Australian systematic botany and conservation certainly includes his critically collected plant specimens, writings and observations. But, perhaps most importantly, he is remembered for the appreciation he generated among the rural community for the native flora and its conservation.

B.J. Newbey, B.R. Maslin

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The vegetation of the Fitzgerald River National Park, Western Australia

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Abstract

Aplin, T.E.H. and Newbey, K.R. The vegetation of the Fitzgerald River National Park, Western Australia. *Kingia* 1(2): 141-153 (1990). A vegetation map of the Fitzgerald River National Park which accompanies this paper shows 12 major plant communities. A brief account of each of these plant communities depicted in that map is provided. The vegetation formations range from woodland to heath, with the predominant formation being tall shrubland. Notes on the physical environment are also included.

Introduction

The Fitzgerald River National Park (Park), of 244,677 ha, lies in the central south coast of Western Australia, between the towns of Bremer Bay and Hopetoun along the coast and Jerramungup and Ravensthorpe inland (Figure 1). The Park was gazetted a "C" class reserve for the preservation of flora and fauna in 1954, and in 1973 was made an "A" class reserve and vested in the National Parks Authority of Western Australia. It is registered as an International Biosphere Reserve with the United Nations Educational Scientific and Cultural Organization, the first to be so approved in Western Australia.

In 1970 a botanical survey was conducted by the Western Australian Herbarium to obtain an assessment of the botanical resources in the Park. The vegetation map which accompanies this paper was compiled by Aplin in the course of that survey. Since then Newbey (1979) undertook a study of the vegetation of the central south coastal region and some of his results have been incorporated in this paper. This is the first of a series of three papers on the vegetation and flora of the park. Accounts of the flora are published separately (Aplin and Newbey 1990, Newbey 1990).

Historical Notes

West, Middle and East Mount Barren, three prominent features in the Park, were named by Matthew Flinders in 1802. Their names indicate his descriptions of them. In 1841, during his historic overland journey, E.J. Eyre traversed the Park. He described it as "barren, worthless country". Eyre recorded the presence of Australian aborigines at Culham Inlet.

* Deceased July 23, 1988

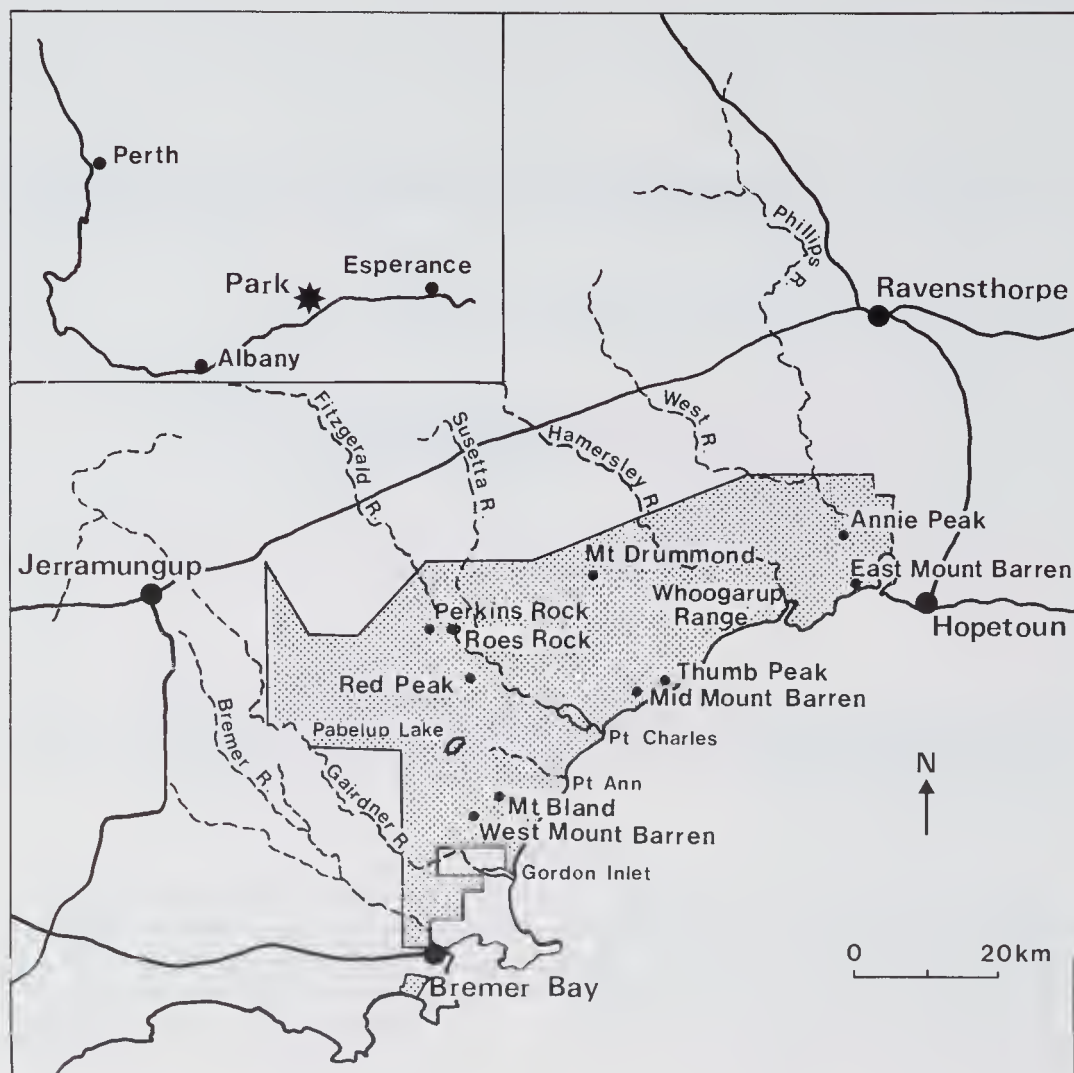


Figure 1. Map showing location of Fitzgerald River National Park

Many of the physical features of the Park, including the Fitzgerald River were named by the surveyor J.S. Roe who visited the area in 1847. Roe reported the presence of good grazing land along the Gairdner River to the north-west of the Park. This was taken up as a pastoral lease by J. Hassell in 1849. Hassell named the property Jerramungup Spring, from the aboriginal word 'yarra-moitch' which means "moitch on high ground", "moitch" being *Eucalyptus occidentalis*.

The overland telegraph line which ran more or less parallel to the coast was completed in 1877 and remained in use until 1927. Following the discovery of gold and copper at Ravensthorpe, the Phillips River Goldfield was declared in 1900. Ravensthorpe, and its port, Hopetoun, were designated town sites in 1901. Their connecting rail link, opened in 1909, remained in use until 1936. In 1902, to prevent the westward movement of rabbits, the Number Two Rabbit Proof Fence which traversed the western portion of the Park inland to the coast was constructed. It was maintained until 1955.

Large areas of vacant Crown Land along the south coastal region were released for agricultural development in the 1950's and 1960's. The main reason why the area of land occupied by the Park was not taken up for farming was its harsh terrain.

Botanical collecting in the Park commenced in 1829 but the first vegetation map of the area was published at 1:250,000 scale using photo-mosaics (Beard 1972). Prior to that, most accounts of the vegetation of the area were sketchy (Gardner 1944, Anon. 1965).

Grazing by introduced livestock in the Park has been confined to small areas along the Phillips, Fitzgerald and Hamersley Rivers. As a consequence most of the vegetation in the Park has remained relatively undisturbed and has not been invaded by alien plant species.

Mining activities in the Park have been mainly exploratory. These reached their peak in 1969-70 when about 31,200 ha or 13% of the area of the Park was pegged for mineral exploration. At that time it was proposed to open-cut mine lignite in the Fitzgerald River valley. Fortunately, subsequent drilling tests proved the lignite deposit to be uneconomic (Cockbain and Van de Graaff 1972). Actual mining operations in the Park have involved the mining of copper at West River from 1908 to 1909 (Sofoulis 1958) and the quarrying of spongolite at Twertup Creek from 1965 to 1978. Exploratory shafts have been sunk at Naendip, for copper, and at Coppermine Creek, for manganese.

A Field Studies Centre was established in 1981 at Twertup Creek by the Fitzgerald River National Parks Association.

There are three resident National Park rangers who maintain the facilities in the Park, and reside in the Park.

Physical Environment

Geology

The geology of south-western Australia was reviewed by Johnstone *et al.* (1973), and it is essentially from this work that the following account on the geology of the Park has been taken.

The Archaean Yilgarn Block is represented along the northern portion of the Park. Composed of gneisses and migmatites, with minor infolded belts of metasediments with different grades of regional metamorphism, it has a general north-west strike. Along the southern margin of the Yilgarn Block the Proterozoic metamorphics of the Albany-Esperance Block trend north-east to south-east and east to west, almost at right angles to the Yilgarn Block. The gneisses, granites and metasediments of the Albany-Esperance Block are dated at about 1,150 million years. The variation in mineral association and metamorphic grade is matched exactly by similar east-west trending rocks in eastern Antarctica, providing one of the strongest pieces of evidence for the geological fit of Australia and Antarctica in the reconstruction of Gondwanaland.

No sediments of Triassic to Neocomian age are known from the south coast, although evidence obtained from east of the Eucla Basin show that rift valley formation commenced as early as late Jurassic. These rift valleys were the precursors of the spreading which separated Australia from Antarctica, and stratigraphic evidence points to a pronounced marine gulf during the Late Cretaceous. Australia became isolated from Antarctica by the uppermost Cretaceous with only a tenuous link joining Tasmania to Antarctica along a transform fault.

The absence of warm water indicators in the Late Cretaceous faunas could be due to water circulation, as it is unlikely that warm waters from the Indian Ocean could have circulated freely in the narrow gulf until at least the middle Eocene. Marine sediments of late Eocene age, of the Plantagenet Group, which are well represented in the Park, consist of fine sandstone, mudstone, siltstone,

spongolite and minor limestone up to 100 m thick with a fauna attesting to warm water sedimentation. This marine transgression extends up to 270 km inland from the present coast line. Old beach levels associated with this cycle of sedimentation are now at about 150 m.

Laterization of the Late Eocene Plantagenet Group probably occurred in the Oligocene and Early Miocene, as Middle Miocene sandstones in the adjoining Eucla Basin are not laterized.

A wide variety of Quaternary units developed around the coastal margin, with the dune system of the south coast tentatively referred to the Pleistocene.

The geology of the Ravensthorpe area has been dealt with by Thom *et al.* (1977) while Sofoulis (1958) has discussed the mineral deposits of the Phillips River Goldfield.

Topography

The Park lies within Swanland of Jutson (1950) and the South Coast Drainage System of Bettenay and Mulcahy (1972). The topography of the Central South Coastal Region was reviewed by Newbey (1979) and the following account is extracted from his work.

The southern portion of the Park is dominated by peaks and ridges of quartzite and phyllitic schist, which rise from 300 to 450 m above sea level. They include West, Middle and East Mount Barren, Mount Bland, Woolbernup Hill and the Whoogarup and Eyre Ranges, with Thumb Peak rising to 457 m. The peaks and ridges have slopes ranging from 7° to 30°, the steeper slopes becoming rockier. The coastline backed by these ranges is steep and rugged. There is an extensive wave-cut platform about 60 m above sea level. Away from the ridges the coastline has a narrow dune system.

To the north of the ranges is an extensive slightly elevated plain with the margins draining into the river systems. Drainage on the plain is local into scattered ephemeral swamps or, if unco-ordinated, gilgais. The swamp floors are approximately 2 m below the general level of the plain.

The two major watercourses, the Fitzgerald and Hamersley Rivers, each meander in a general north to south direction in narrow channels in broad flat-floored gorges walled by spongolite cliffs, or steep rubble slopes, 10 to 50 m high. Small mesas and buttes are present in the gorges. The Phillips, West, Gairdner and Bremer Rivers each also traverse parts of the Park. All of the rivers are intermittently flowing and saline; all terminate in inlets which are frequently cut off from the Southern Ocean by sand bars.

The Stirling Scarp, consisting of a steep to a more gentle granite slope, marks the boundary of the Yilgarn and the Albany-Esperance Blocks. To the north of the scarp are gently undulating uplands.

Soils

The various soil types in south-western Australia have been described by Northcote *et al.* (1967) and Muleahy (1973). The following account is taken from Newbey (1979), with nomenclature following Northcote (1971).

Bare rock or shallow skeletal soils cover the ranges. The soils are sandy on quartzite and sandy loam on schist. Colluvial deposits have developed at the bases of the ranges. When derived from schist the deeper profiles of the moderately developed gradational soils have a clay loam "B" horizon.

The three main soils types on the elevated plain are: 1) truncated laterite, sometimes overlain with sand, 2) duplex soil, 700 mm to 1 m thick, developed over spongolite and consisting of sand to sandy loam overlying clay to sandy clay, and 3) duplex soil, developed over spongolite in drainage sumps and consisting of a shallow “A” horizon which ranges from a self-mulching clay loam in gilgais to loamy sands on the swamp floors.

Stony loams and skeletal soils overlying spongolite occur on the steep slopes of gorges and bedrock exposures.

On the gorge floors soil profiles range from gradational to duplex, the “B” horizon which is developed *in situ*, ranging from sandy to clay loams, whereas the “A” horizon, which frequently includes colluvial material, varies in texture from sand to clay loams.

Along the major drainage lines the alluvial soils are saline and frequently waterlogged or damp to within 200 to 500 mm of the surface. Fossil river flats, 2 to 4 m above the stream level, have finer texture soils.

Siliceous and calcareous sands occur on the narrow coastal dune systems.

To the north of the Stirling Scarp the soils have a duplex profile, the “A” horizon of sand or sandy loam, 100 to 200 mm in depth, overlying a mottled sandy clay zone and lower pallid clay zone up to or more than 5 m thick.

Apart from the alluvial soils, the nutrient content in each of the soil types is low. The pH levels range from 6.5 for sand, through 8.0 for clays, to in excess of 8.5 for calcareous sands.

Climate

There are no weather recording stations in the Park and data presented in Table 1 have been extrapolated. The climate, according to the classification of Papadakis (1975), is Marine Mediterranean. The bulk of the rainfall is received from May to October. The marine influence diminishes as the distance inland increases, with isotherms and isohyets running more or less parallel to the coastline.

Table 1. Range of climatic variation in the Fitzgerald River National Park

Figures have been extrapolated from recordings taken at Bremer Bay, Jerramungup, Ravensthorpe and Hopetoun, that were obtained from the Western Australian Regional Office of the Bureau of Meteorology.

Attribute	Coastal	Northern boundary
Average annual rainfall	650 mm	360 mm
Average break to season	Early March	Late April
Growing season	8.1 months	5.9 months
Anticipation of 7-month dry spell years	1 in 20 years	1 in 3 years
Average annual evaporation	1,000 mm	1,270 mm
Mean winter temperature	12.2°C	10.5°C
Mean summer temperature	20.5°C	29.4°C

Classifying the Vegetation

The classification system used follows Specht (1970) as shown in Table 2.

Table 2. Vegetation structural formations after Specht (1970)

Life-form and height of tallest stratum	Projected foliage cover of tallest stratum, as %	Description	Reference Code
Trees over 30 m	70-100	High closed-forest	A1
	30-70	High open-forest	A2
	10-30	High woodland	A3
	Under 10	High open-woodland	A4
Trees 10-30 m	70-100	Closed-forest	B1
	30-70	Open-forest	B2
	10-30	Woodland	B3
	Under 10	Open-woodland	B4
Trees under 10 m	70-100	Low closed-forest	C1
	30-70	Low open-forest	C2
	10-30	Low woodland	C3
	Under 10	Low open-woodland	C4
Shrubs over 2 m	70-100	Closed-scrub	D1
	30-70	Open-scrub	D2
	10-30	High shrubland	D3
	Under 10	High open-shrubland	D4
Shrubs under 2 m	70-100	Closed-heath	E1
	30-70	Open-heath	E2
	10-30	Low shrubland	E3
	Under 10	Low open-shrubland	E4
Herbs	70-100	Closed-herbland, closed-grassland, closed-sedgeland, etc.	F1
	30-70	Herbland, grassland, sedgeland, etc.	F2
	10-30	Open-herbland, open-grassland, open-sedgeland, etc.	F3
Hummock grasses	10-30	Hummock grassland	G3
	Under 10	Open-hummock grassland	G4

Subsequent to the vegetation map being published, the shrub categories, under 2 m, were further subdivided into:

1.	Shrubs 1 to 2 m	70-100% cover	Closed-heath
		30-70%	Open-heath
		10-30%	Shrubland
		Under 10%	Open-shrubland
2.	Shrubs under 1 m	70-100%	Low closed-heath
		30-70%	Low open-heath
		10-30%	Low shrubland
		Under 10%	Low open-shrubland

These categories are mentioned in the text.

Mapping the Vegetation

The vegetation map published at 1:250,000 scale, which accompanies this paper, was based upon aerial-photointerpretation of black and white stereo-pairs taken at 1:40,000 scale. These photographs were taken in 1968 and 1969. Unfortunately large areas of vegetation in the Park were burnt just prior to the photographs being taken, while further areas were burnt between then and the time of the survey in 1970. This made aerial-photointerpretation extremely difficult, and as a consequence, other data such as soils and topography were used to assist in delineating boundaries of vegetation types.

Plant Communities

Twelve major plant communities were recognised at the mappable scale. Species that occur in the Park are listed in Aplin and Newbey (1990) and Newbey (1990).

Woodland (B3)

1. Ys. *Eucalyptus occidentalis* - *E. spp.* woodland; confined to the banks and flats of major watercourses and to larger swamps, varies in structural formation from woodland (B3) to low open-woodland (C4).

The understorey high open-scrub layer includes species of *Acacia*, *Allocasuarina*, *Alyogyne*, *Banksia*, *Dodonaea*, *Hakea*, *Labichea*, *Leptospermum*, *Melaleuca*, *Santalum* and *Viminaria*, while the low open shrub layer includes species of *Acacia*, *Allocasuarina*, *Anthocercis*, *Astroloma*, *Brachysema*, *Cassia*, *Dampiera*, *Diplolaena*, *Dodonaea*, *Enchylaena*, *Eutaxia*, *Glischrocaryon*, *Grevillea*, *Guichenotia*, *Hakea*, *Halgania*, *Hibbertia*, *Myoporum*, *Olearia*, *Petrophile*, *Phyllanthus*, *Pimelea*, *Rhagodia* and *Templetonia*. Tufted plants, climbers, ground cover plants and herbs are represented by *Amphipogon*, *Carpobrotus*, *Cassytha*, *Gahnia*, *Isolepis*, *Juncus*, *Kennedia*, *Lepidosperma*, *Patersonia*, *Pelargonium*, *Senecio* and *Tricostularia*, together with members of the Droseraceae, Orchidaceae and Stylidiaceae.

Low closed-forest (C1)

2. Ep. *Eucalyptus platypus* - *E. gardneri* low closed-forest; wrongly depicted on the vegetation map as closed-scrub, whereas in fact the dominant stratum consists of trees, not shrubs, occurs on the face of the scree-slopes of the spongolite cliffs on clayey loam soils. *Eucalyptus platypus* is found towards the base of the cliffs while *E. gardneri* occurs on the upper slopes and the tops of the cliffs. Other tree species present include *Eucalyptus annulata*, *E. astringens*, *E. lehmannii* and

E. transcontinentalis. The low open shrub layer is made up of *Acacia glaucoptera*, *Boronia ternata*, *Daviesia benthamii* subsp. *benthamii*, *Dodonaea concinna*, *Melaleuca cucullata*, *M. undulata*, *Phebalium rude* subsp. *amblycarpum* and *Styphelia intertexta*.

Closed-scrub (D1)

3. Ea. *Eucalyptus angulosa* - *E. platypus* var. *heterophylla* - *Melaleuca nesophila* closed-scrub; occurs on coastal sand dunes. Other high shrubs present are *Eucalyptus decipiens*, *E. falcata* and *E. tetragona*. Ea closed-scrub merges with Ag closed-scrub and the two are synonymous with coastal scrub (Beard 1972).

4. Ag. *Agonis flexuosa* closed-scrub; occurs on coastal sand dunes, and in some areas develops into a low forest. High shrub species present include *Acacia cyclops*, *A. ligulata*, *A. rostellifera*, *A. saligna* and *Exocarpos sparteus*. The low shrub stratum is made up of *Acacia littorea*, *Acrotriche cordata*, *Adriana quadripartita*, *Anthocercis littorea*, *Hibbertia cuneiformis*, *Leucopogon parviflorus*, *Olearia axillaris*, *Spyridium globulosum* and *Templetonia retusa* together with species of *Agonis*, *Allocasuarina*, *Andersonia*, *Banksia*, *Beaufortia*, *Boronia*, *Bossiaea*, *Burtonia*, *Calothamnus*, *Comesperma*, *Dryandra*, *Grevillea*, *Guichenotia*, *Gyrostemon*, *Hakea*, *Isopogon*, *Logania*, *Melaleuca*, *Opercularia*, *Pelargonium*, *Petrophile*, *Phebalium*, *Phyllanthus*, *Phymatocarpus*, *Pimelea*, *Pultenaea*, *Scaevola*, *Sphaerolobium*, *Stirlingia*, *Thomasia* and *Velleia*. Tufted plants, climbers, ground cover plants and herbs include species of *Amphipogon*, *Anarthria*, *Carpobrotus*, *Cassytha*, *Clematis*, *Conostylis*, *Drosera*, *Isolepis*, *Kennedia*, *Lepidosperma*, *Loxocarya*, *Mesomelaena*, *Patersonia*, *Poa*, *Stylidium* and *Trachymene*.

Open-scrub (D2)

5. Eg. *Eucalyptus gardneri* - *E. conglobata* - *E. nutans* open-scrub; occurs predominantly on the lower slopes of broad valleys. Other high shrub species present include *Eucalyptus annulata*, *E. celastroides* subsp. *virella*, *E. incrassata*, *E. leptocalyx*, *E. platypus*, *E. redunca*, *E. transcontinentalis*, *E. uncinata*, *Acacia cyclops*, *Banksia media*, *Hakea laurina* and *Santalum acuminatum*. The low closed shrub stratum includes species of *Acacia*, *Acrotriche*, *Astroloma*, *Baeckea*, *Boronia*, *Bossiaea*, *Chamelaucium*, *Chorizema*, *Comesperma*, *Cooperhooia*, *Daviesia*, *Dodonaea*, *Eriostemon*, *Exocarpos*, *Glischrocaryon*, *Gompholobium*, *Grevillea*, *Hakea*, *Halgania*, *Helichrysum*, *Hibbertia*, *Isopogon*, *Leptospermum*, *Melaleuca*, *Nematolepis*, *Olearia*, *Oxylobium*, *Persoonia*, *Petrophile*, *Phebalium*, *Pimelea*, *Platysace*, *Prostanthera*, *Santalum* and *Synaphea*. Tufted plants, climbers, ground cover plants and herbs include species of *Amphipogon*, *Billardiera*, *Cassytha*, *Laxmannia*, *Lepidosperma*, *Mesomelaena*, *Sollya* and *Wilsonia*.

6. DH. *Dryandra* spp. - *Hakea* spp. - *Allocasuarina* spp. open-scrub; is found on shallow sandy loam, which is often moderately laterized, overlying spongolite. The high shrub stratum includes *Allocasuarina trichodon*, *Banksia lemanniana*, *B. media*, *Dryandra falcata*, *D. quercifolia*, *Eucalyptus gardneri*, *E. leptocalyx*, *E. nutans*, *E. redunca*, *E. tetragona*, *E. uncinata*, *Hakea crassifolia*, *H. ferruginea*, *H. laurina*, *H. marginata*, *H. trifurcata* and *H. varia*. The low closed shrub stratum includes species of *Acacia*, *Acrotriche*, *Agonis*, *Allocasuarina*, *Andersonia*, *Astroloma*, *Baeckea*, *Beaufortia*, *Boronia*, *Brachysema*, *Burtonia*, *Calothamnus*, *Chorizema*, *Comesperma*, *Cooperhooia*, *Dampiera*, *Dodonaea*, *Dryandra*, *Gompholobium*, *Grevillea*, *Hakea*, *Isopogon*, *Kunzea*, *Lambertia*, *Leucopogon*, *Logania*, *Lysinema*, *Melaleuca*, *Opercularia*, *Persoonia*, *Petrophile*, *Pultenaea*, *Sphaerolobium*, *Stackhousia*, *Verticordia* and *Xanthorrhoea*. Tufted plants, climbers, and herbs include species of *Amphipogon*, *Anarthria*, *Cassytha*, *Drosera*, *Gahnia*, *Lepidosperma* and *Mesomelaena* as well as members of the Orchidaceae.

High shrubland (D3)

7. *Eu. Eucalyptus uncinata* - *E. redunca* - *E. incrassata* - *E. tetragona* high shrubland; which merges with Eg open-scrub, is found on the gentle upper slopes of the broad valleys. Other high shrub species present include *Eucalyptus conglobata*, *E. eremophila*, *E. falcata*, *E. gardneri*, *E. lehmannii*, *E. leptocalyx*, *E. nutans*, *E. oleosa* and *E. xanthoneura*, *Acacia saligna*, *Allocasuarina campestris* subsp. *campestris*, *A. huegeliana*, *A. trichodon*, *Alyogyne hakeifolia*, *A. huegelii*, *Callitris drummondii*, *Exocarpos sparteus*, *Hakea laurina*, *Labichea lanceolata* subsp. *brevifolia*, *Melaleuca elliptica* and *Santalum murrayanum*. Many of the genera present in the low shrub stratum of both Eg and DH open-scrub are found in Eu high shrubland. Additional genera are *Anthocercis*, *Astartea*, *Brachyloma*, *Callistemon*, *Calytrix*, *Choretrum*, *Commersonia*, *Cryptandra*, *Darwinia*, *Jacksonia*, *Kennedia*, *Lechenaultia*, *Logania*, *Microcorys*, *Mirbelia*, *Phymatocarpus*, *Spyridium*, *Styphelia*, *Templetonia* and *Thomasia*. Tufted plants, climbers, ground cover plants and herbs include those genera found in both Eg and DH open-scrub, as well as *Chamaescilla*, *Conostylis*, *Dianella*, *Disphyma*, *Juncus*, *Lomandra*, *Patersonia*, *Sollya*, *Stylidium*, *Thysanotus* and *Wurmbea*. Eg open-scrub and Eu high shrubland are synonymous with shrubland mallee (Beard 1972).

High open-shrubland (D4)

8. *Et. Eucalyptus tetragona* - *E. buprestium* - *Banksia baxteri* - *B. attenuata* high open-shrubland; occurs on the gently sloping or undulating lightly stripped lateritic soils of the elevated plain. The soils are hard-setting, neutral, mottled sandy loams overlying sandy clay, with a mantle of sand from 200 mm to 2 m in depth. On the deeper sands *E. tetragona* is associated with *B. baxteri* and *B. attenuata*, whereas on shallow sandy soils *E. tetragona* is associated with other *Eucalyptus* species such as *E. decipiens*, *E. falcata*, *E. incrassata*, *E. leptocalyx*, *E. nutans* and *E. redunca*. Other tall shrub species found are *Banksia coccinea*, *B. media*, *B. speciosa*, *Lambertia inermis*, *Nuytsia floribunda*, *Hakea laurina*, *H. victoria*, *Grevillea tripartita* and *Exocarpos sparteus*. The low shrub stratum is similar to those in PL open-heath. Et high open-shrubland is synonymous with mallee heath (Beard 1972).

Closed-heath (E1)

9. PM. Proteaceae - Myrtaceae mixed closed-heath; which occurs on the Proterozoic quartzite, phyllitic schist of the Barren Ranges, is a mixture of vegetation formations, predominantly closed-heath but also attaining the structure of closed-scrub or open-scrub. Proteaceous and myrtaceous elements predominate. Species of *Eucalyptus* endemic to this vegetation type, and in the Park, are *E. coronata*, *E. burdettiana* and *E. sepulcralis*. Other plant taxa endemic in the Park, in this vegetation type, are *Acacia argutifolia*, *A. cedroides*, *A. phlebopetala* var. *pubescens*, *Adenanthos dobagii*, *A. ellipticus*, *A. labillardierei*, *A. venosus*, *Anthocercis fasciculata*, *Baeckea ovalifolia*, *Calothamnus validus*, *Calycopeplus marginatus*, *Coopernookia georgei*, *Goodenia stenophylla*, *Grevillea fistulosa*, *G. infundibularis*, *Hakea hookeriana*, *Jacksonia compressa*, *Lechenaultia superba*, *Melaleuca citrina*, *Regelia velutina*, *Stylidium albomontis* and *S. galioides*. Undescribed species of *Acacia*, *Agonis*, *Grevillea*, *Hibbertia* and *Monotoca* found in this vegetation type are probably restricted to it (Newbey 1990). Shrub species present include *Banksia attenuata*, *B. baueri*, *B. baxteri*, *B. coccinea*, *B. lemanniana*, *B. nutans* var. *nutans*, *B. oreophila*, *B. violacea*, *Dryandra falcata*, *D. plumosa*, *D. pteridifolia* and *D. quercifolia*. Also present are species of *Acrotriche*, *Allocasuarina*, *Andersonia*, *Beaufortia*, *Bossiaea*, *Chamelaucium*, *Chorizema*, *Comesperma*, *Conospermum*, *Conothamnus*, *Dampiera*, *Darwinia*, *Daviesia*, *Eutaxia*, *Exocarpos*, *Gompholobium*, *Hypocalymma*, *Isopogon*, *Kunzea*, *Lambertia*, *Lasiopetalum*, *Leptomeria*, *Leptospermum*, *Nuytsia*, *Persoonia*, *Petrophile*, *Platysace*, *Pomaderris*, *Pseudanthus*, *Rhadinothamnus*, *Scaevola*, *Siegfriedia*, *Sphenotoma*, *Spyridium*, *Stachystemon*, *Tetratheca* and *Thomasia*. Tufted plants, climbers and herbs

include species of *Anarthria*, *Athrixia*, *Billardiera*, *Conostylis*, *Dasypogon*, *Drosera*, *Isolepis*, *Kennedia*, *Lepidosperma*, *Patersonia*, *Sollya* and *Thelymitra*.

10. LM. Leguminosae - Myrtaceae mixed closed-heath; which occurs on the pediments adjacent to the coast, is wind-pruned to a height barely exceeding 1 m and is therefore a low closed-heath. The low shrub layer includes species of *Acacia*, *Acrotriche*, *Banksia*, *Calothamnus*, *Daviesia*, *Eucalyptus*, *Guichenotia*, *Hakea*, *Hibbertia*, *Leptomeria*, *Leptospermum*, *Melaleuca*, *Olearia*, *Phebalium*, *Pimelea*, *Pultenaea*, *Rhagodia*, *Scaevola*, *Templetonia* and *Westringia*.

Open-heath (E2)

11. PL. Proteaceae - Leguminosae - Myrtaceae mixed open-heath; found on the gently undulating elevated plain, usually in exposed situations, mostly in the northern portion of the Park, is synonymous with heath (Beard 1972). This formation is difficult to differentiate from Et high open-shrubland, with which it merges, after severe fires, as the only structural form that separates these two is the presence of a tall open shrub layer in the high open-shrubland. The mid-dense to dense low shrub layer in PL and Et are floristically rich and similar in species composition. Both contain species of *Acacia*, *Acrotriche*, *Actinodium*, *Adenanthos*, *Andersonia*, *Astartea*, *Astroloma*, *Baeckea*, *Banksia*, *Beaufortia*, *Boronia*, *Brachysema*, *Burtonia*, *Calectasia*, *Chamelaucium*, *Comesperma*, *Cooperhooia*, *Cryptandra*, *Dampiera*, *Darwinia*, *Dasypogon*, *Daviesia*, *Dryandra*, *Eriostemon*, *Eutaxia*, *Franklandia*, *Gastrolobium*, *Glischrocaryon*, *Gompholobium*, *Goodenia*, *Grevillea*, *Hakea*, *Helichrysum*, *Hibbertia*, *Hovea*, *Hypocalymma*, *Isopogon*, *Jacksonia*, *Kunzea*, *Lasiopetalum*, *Latrobea*, *Lechenaultia*, *Leptomeria*, *Leptospermum*, *Leucopogon*, *Logania*, *Lysinema*, *Melaleuca*, *Microcorys*, *Monotoca*, *Oligarrhena*, *Opercularia*, *Persoonia*, *Petrophile*, *Phymatocarpus*, *Pimelea*, *Platysace*, *Pultenaea*, *Sphaerolobium*, *Spyridium*, *Stachystemon*, *Stackhousia*, *Stirlingia*, *Styphelia*, *Synaphea*, *Templetonia*, *Verticordia* and *Xanthorrhoea*. Tufted plants, climbers and herbs include species of *Agrostocrinum*, *Amphipogon*, *Anarthria*, *Anigozanthos*, *Billardiera*, *Cassutha*, *Caustis*, *Chamaescilla*, *Conostylis*, *Cyathochaeta*, *Dianella*, *Diuris*, *Drosera*, *Gahnia*, *Haemodorum*, *Hypolaena*, *Johnsonia*, *Laxmannia*, *Lepidosperma*, *Lomandra*, *Loxocarya*, *Lyginia*, *Lyperanthus*, *Mesomelaena*, *Patersonia*, *Restio*, *Schoenus*, *Sollya*, *Stylidium* and *Tricostularia*.

Closed-herbland (F1)

12. S. Sedgeland and Swamp Complexes; occur in and around shallow intermittent lakes and swamps on the undulating elevated plain and the sandy plain. The grey silty surface soils are underlain by brown or mottled clay. Several plant communities make up the vegetation complexes, and of these the sedge component consisting of species of *Anarthria*, *Baumea*, *Caustis*, *Cyathochaeta*, *Gahnia*, *Isolepis*, *Lepidosperma*, *Lyginia*, *Mesomelaena* is most consistently represented. *Eucalyptus occidentalis* woodland and *Melaleuca cuticularis* low woodland may be present in and around the larger swamp complexes. The shrub stratum is made up of species of *Acacia*, *Chorizema*, *Cooperhooia*, *Hakea*, *Isopogon*, *Kunzea*, *Leptospermum*, *Petrophile* and *Pultenaea*. The prostrate *Wilsonia humilis* is often the only ground-cover species on otherwise bare areas. *Halosarcia pergranulata* subsp. *pergranulata* is present in saline depressions.

Minor plant communities

Plant communities present in the Park as non-mappable units include granite complexes which occur in the northern portion of the Park and which range from lichen-encrusted rocks, through clumps of very low *Borya constricta* in small pockets of soil, *Melaleuca elliptica* - *Calothamnus quadrifidus* closed-heath in shallow soils, to *Melaleuca uncinata* - *Allocasuarina campestris* subsp.

campestris open-scrub in deeper soils away from granite exposures. *Allocasuarina campestris* subsp. *campestris* high shrubland, with a mixed heath understorey forms a continuum between the *Melaleuca uncinata* - *Allocasuarina campestris* subsp. *campestris* open-scrub and Et high open-shrubland.

A summary of the relationships between plant communities and the physical environment in the Park is shown in Table 3.

Table 3. Relationships between plant communities and the physical environment in the Park

Plant communities	Physical environment		
	Soils	Geology	Topography
PM, LM	Skeletal soils and shallow sandy loam Colluvial sand Colluvial loam	Proterozoic quartzite and phyllitic schist	Ranges
PL			
Eu			
Et	Truncated laterites Colluvial sand Duplex soils Swamp soils	Proterozoic gneisses and migmatites Eocene spongolite Both bedrock types	Elevated plain
PL			
Eu, DH			
Ys, S			
Et	Truncated laterites Colluvial sand Drainage line colluvium Skeletal soils	Archaean gneisses and migmatites	Northern plain
PL			
Eu			
Granite complex			
Eu	Duplex soils Colluvial loam Alluvium	Eocene spongolite	Gorge and valley floors
Eg, Ep			
Ys			
Ea, Ag	Siliceous sand Calcareous sand	Recent sands	Coastal dunes
Ea			

Discussion

The only plant community restricted in its distribution to the Park is the PM mixed closed-heath which occurs on the Ranges.

In general terms communities which develop greater amounts of biomass, such as Ys woodland, Ep low closed-forest and Eg open-scrub, occur on the valley floors and lower slopes, whereas shrubland and mixed heath communities, which develop lesser amounts of biomass, are present on the upper slopes and on the elevated plains. The dominant genus in the woodland and shrubland communities is *Eucalyptus*, although in deeper sandy soils it is replaced by *Banksia*. The mixed scrub and heath communities have predominantly Proteaceous, Myrtaceous and Leguminous elements.

Sclerophyllous scrub, shrubland and heath communities, often collectively referred to locally as sandplain, sandheath or Kwongan (Beard 1976), which develop on nutrient-poor soils in a

Mediterranean climate, usually have a high species richness and a high degree of endemism (Raven 1971). Two factors responsible for this rapid genetic differentiation and speciation, applicable in south-western Australia, are the existence of complex edaphic mosaics and the stresses brought about by major climatic changes and year to year fluctuations (Hopper 1979). The high species richness and endemism in the flora of the Park has been dealt with separately (Aplin and Newbey 1990).

Milewski (1983), who compared the ecosystem of the Barrens with that of a similar nutrient-poor ecosystem in South Africa, found that in both regions, plants in general live long, have parts that grow slowly, have much of their biomass underground, are woody and unpalatable, and are associated with underground fungi. He also found that the plants attracted warm-blooded pollinators, were able to recycle nutrients, survive damage by consumers and fire, and set few seeds. Some striking discrepancies between the two ecosystems were the much taller vegetation, the more prickly, resinous or toxic nature of the leaves of shrubs and the paucity of fleshy rhizomatous plants in the Western Australian ecosystem.

Pate and Dixon (1982) showed that underground fleshy storage organs in Western Australian plants were associated with all life forms. They listed 204 species possessing underground storage organs; of these, 66 species were recorded in this survey in the Park with 33 species, or 30% of this number in the Orchidaceae, 8 species in the Droseraceae and 6 species in the Liliaceae. These organs are important structures for the plant's ability to regenerate after fire or to evade drought conditions.

A Raunkjerian life form spectrum of the elements in the Park showed that phanerophytes made up 68% of the total number of species of which 85% or nearly 57% of the total, were nanophanerophytes; chamaephytes 3%, hemicryptophytes 12%, geophytes 6% and therophytes 10.5% (Aplin and Newbey 1990). The life form spectrum gives a clear indication of the dominance of shrub species, and other woody perennial species, in the vegetation of the Park.

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The flora of the Fitzgerald River National Park, Western Australia

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Abstract

Aplin, T.E.H and Newbey, K.R. The flora of the Fitzgerald River National Park, Western Australia. *Kingia* 1(2): 155-193 (1990). The named flora of the Fitzgerald River National Park consists of 7 species of ferns, and 1100 species, 15 subspecies and 39 varieties of flowering plants. Of these, 36 are endemic to the Park, 275 endemic to the Eyre Botanical District and 786 endemic to the South-West Botanical Province; 30 of the species are introduced aliens. In all, 848 taxa are endemic to the State of Western Australia while 283 of the native taxa have their range of distribution extending beyond the Nullarbor region into eastern Australia. In terms of species richness the Park has 0.47 taxa per km².

The distribution of plant taxa, over the main topographical units in the Park, varies from 578 in the plains to 245 in the coastal dunes. Shrub and small tree life forms include 68 percent of the total number of taxa while geophytes and therophytes, between them, make up a further 16 percent.

Introduction

The Fitzgerald River National Park (Park) lies in the central south coast of Western Australia, between the towns of Bremer Bay and Hopetoun along the coast and Jerramungup and Ravensthorpe inland (Figure 1). Three papers have been prepared primarily on the vegetation and the flora of the Park. The first covers vegetation with background information on climate, geology, topography, and soils (Aplin and Newbey 1990). This paper lists and comments on named plant taxa recorded up to 1980. The third paper lists additional plant taxa recorded up to the start of the biological survey of the Park (July 1985), as well as unnamed taxa and those with a high conservation value.

This paper deals with the floristic elements of the Park in terms of endemism, species diversity, life form and distribution. It is based on a botanical survey undertaken by staff members of the Western Australian Herbarium in 1970, and on collections made subsequently, mainly by Newbey (1979), in the course of a study of the vegetation of the central south coastal region. The phytogeographical regions of Western Australia (Beard 1980) are shown on the last page of this volume.

Historical Background

The first botanical collector to visit the area occupied by the Park was W. Baxter in 1829. Later visitors were J. Drummond (1847, 1848), J.S. Roe (1848) and G. Maxwell (1863). Sir William Hooker, the then Director, Royal Botanic Gardens, Kew, England, said of Drummond's 1848 collection that he had "rarely seen so great a number of fine and remarkable species arrive at any one time from one country" (Erickson 1969).

* Deceased July 23, 1988

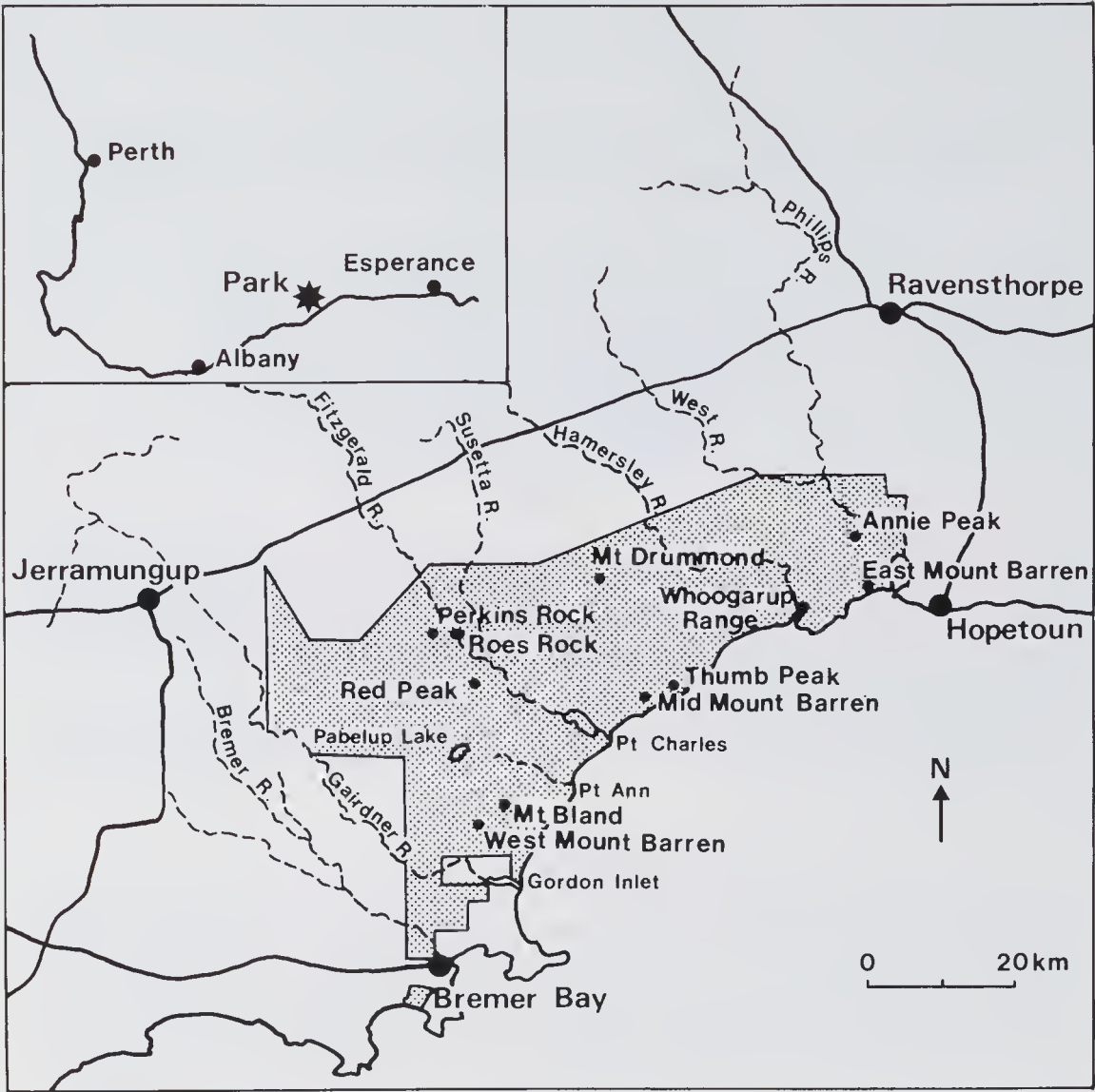


Figure 1. Map showing location of Fitzgerald River National Park

During the first half of this century important collections were also made by C. Andrews (1903), C.A. Gardner (1925, 1931, 1948), W.E. Blackall (1925, 1931) and H. Steedman (1930, 1938). Since 1950, with the release of adjacent land for agricultural development, and the subsequent easier access to the Park, numerous botanical collecting trips have been made to the Park by local and other botanists.

Results and Discussion

Floristic Data

Named plant taxa known to occur in the Park are listed in Appendix 1, and voucher specimens of most taxa have been lodged in the Western Australian Herbarium (PERTH). Nomenclature follows Green (1985) apart from two taxa; *Agonis undulata* is considered distinct from *A. hypericifolia*, and the

broad-leaved form of *Lasiopetalum rosmarinifolium* is retained as var. *latifolium*. Collections and recordings represent 7 species of ferns, and 1100 species, 15 subspecies and 39 varieties of flowering plants. Thirty of the flowering plant species are introduced. Unnamed taxa are dealt with by Newbey (1990).

Endemism

The South-West Botanical Province, in which the Park is situated, contains over 3600 plant species of which 2450, or 68 percent of the total, are endemic to the Province (Marchant 1973). Hopper (1979) suggested that this figure could be as high as 75 to 80 percent. Hopper concluded that the existence of marine, edaphic or climatic barriers to migration since the Eocene effectively isolated most components of the south-western flora from related groups in eastern Australia, and that this isolation had been primarily responsible for the maintenance of high specific endemism in the region.

There are 36 taxa, or 3 percent of the Park flora, endemic to the Park (Table 1). The greater numbers occur in the families Myrtaceae (9 taxa) and Proteaceae (8) with lesser numbers in the Mimosaceae (4), Goodeniaceae (3), Rutaceae (2), Stylidiaceae (2), Epacridaceae (1), Euphorbiaceae (1), Amaranthaceae (1), Solanaceae (1) Myoporaceae (1), Papilionaceae (1), Chloanthaceae (1), and Lamiaceae (1).

There are 786 taxa, or 68 percent of the Park flora, endemic to the South-West Botanical Province; of these 275, or 24 percent of the Park flora, are endemic to the Eyre Botanical District (Table 1). Families which have a large number of taxa, restricted to the South-West Botanical Province, i.e 10 or more, are Cyperaceae, Restionaceae, Haemodoraceae, Orchidaceae, Proteaceae, Droseraceae, Mimosaceae, Papilionaceae, Rutaceae, Euphorbiaceae, Sterculiaceae, Dilleniaceae, Thymelaeaceae, Myrtaceae, Epacridaceae, Goodeniaceae, Stylidiaceae and Asteraceae (Table 1).

The Eyre Botanical District contains several genera each with 5 or more taxa endemic to the District (Table 2). *Acacia*, *Eucalyptus*, *Banksia*, *Melaleuca*, *Leucopogon* and *Hakea*, each with 10 or more taxa, have the greatest number (Table 2). Whereas *Pultenaea*, *Banksia* and *Lasiopetalum* have the highest percentage of endemic taxa followed by *Adenanthos*, *Grevillea* and *Dryandra*.

Twenty-one genera have 8 or more taxa endemic to the South-West Botanical Province; of these *Hakea*, *Boronia*, *Banksia*, *Dryandra*, *Verticordia*, *Hibbertia*, *Adenanthos*, *Pultenaea*, *Petrophile*, *Isopogon*, *Leucopogon*, *Drosera*, *Boronia*, and *Stylidium* have the highest percentage, followed by *Acacia*, *Schoenus*, *Allocasuarina* and *Lasiopetalum* (Table 2). The largest numbers of endemic taxa are found in *Acacia*, *Eucalyptus*, *Melaleuca*, *Hakea* and *Leucopogon*, each with over 20.

The distribution of 375 taxa, or 32 percent of the Park flora extends beyond the South-West Botanical Province; of these 62 taxa, or 5 percent of the Park flora are restricted to Western Australia. Thus, 848 taxa, or 73 percent of the Park flora, are endemic to the State of Western Australia, with the majority (786) or 93 percent of those also endemic to the South-West Botanical Province (Appendix 1).

Two hundred and eighty-three of the native taxa, or 24 percent of the Park flora, extends beyond the Nullarbor region into eastern Australia (Table 3). The distribution of species occurring outside of Western Australia was based largely on Jessop (1984). Families in which over 60 percent of recorded taxa are also native to eastern Australia, are Ophioglossaceae, Dennstaedtiaceae, Adiantaceae, Aspleniaceae, Potamogetonaceae, Juncaginaceae, Centrolepidaceae, Juncaceae, Urticaceae, Santalaceae, Polygonaceae, Chenopodiaceae, Portulacaccae, Lauraceae, Crassulaceae,

Oxalidaceae, Linaceae, Zygophyllaceae, Malvaceae, Clusiaceae, Apiaceae, Gentianaceae, Apocynaceae, Convolvulaceae, Boraginaceae, Lentibulariaceae, Plantaginaceae, Campanulaceae, and Asteraceae (Table 3). In many of these families representation in the Park may be limited to one taxon only.

Of the 36 taxa endemic to the Park, 24 are endemic to the topographical unit of peaks and ridges, while a further 5, found in this unit, also occur elsewhere (Appendix 1). The remaining 7 taxa which do not occur in the peaks and ridges unit are endemic to other topographical units within the Park boundary.

Table 1. The number and percentage of taxa recorded in the Park that are endemic to the South-West Botanical Province, the Eyre Botanical District and the Park. Family sequence follows Green (1985)

Family	No. of taxa recorded in the Park	No. (and %) of Park taxa endemic to		
		S.W. Botanical Province	Eyre Botanical District	The Park
Ophioglossaceae	1	-	-	-
Adiantaceae	3	-	-	-
Dennstaedtiaceae	1	-	-	-
Aspleniaceae	2	-	-	-
Cupressaceae	4	3 (75%)	1 (25%)	-
Potamogetonaceae	1	-	-	-
Juncaginaceae	4	-	-	-
Poaceae	26	4 (15%)	1 (4%)	-
Cyperaceae	53	33 (62%)	2 (4%)	-
Restionaceae	23	21 (91%)	1 (4%)	-
Centrolepidaceae	6	2 (33%)	-	-
Phylodraceae	1	1 (100%)	-	-
Juncaceae	5	-	-	-
Dasypogonaceae	10	7 (70%)	-	-
Xanthorrhoeaceae	1	1 (100%)	-	-
Phormiaceae	2	-	-	-
Anthericaceae	16	8 (50%)	3 (19%)	-
Colchicaceae	2	1 (50%)	-	-
Haemodoraceae	13	12 (92%)	3 (23%)	-
Hypoxidaceae	2	1 (50%)	-	-
Iridaceae	5	4 (80%)	2 (40%)	-
Orchidaceae	47	25 (53%)	-	-
Casuarinaceae	9	8 (89%)	2 (22%)	-
Urticaceae	1	-	-	-
Proteaceae	115	111 (96%)	56 (49%)	8 (7%)
Santalaceae	10	3 (30%)	1 (10%)	-
Olcaceae	2	2 (100%)	-	-
Loranthaceae	1	1 (100%)	-	-
Polygonaceae	1	-	-	-
Chenopodiaceae	28	1 (4%)	-	-
Amaranthaceae	5	4 (80%)	1 (20%)	1 (20%)
Gyrostemonaceae	2	2 (100%)	-	-
Aizoaceae	5	1 (20%)	-	-
Molluginaceae	1	1 (100%)	-	-
Portulacaceae	2	-	-	-
Ranunculaceae	2	1 (50%)	-	-
Lauraceae	4	1 (25%)	-	-
Brassicaceae	3	-	-	-
Droseraceae	12	11 (92%)	-	-
Crassulaceae	3	-	-	-
Pittosporaceae	7	5 (71%)	2 (29%)	-

Table 1 (continued). The number and percentage of taxa recorded in the Park that are endemic to the South-West Botanical Province, the Eyre Botanical District and the Park. Family sequence follows Green (1985)

Family	No. of taxa recorded in the Park	No. (and %) of Park taxa endemic to		
		S.W. Botanical Province	Eyre Botanical District	The Park
Rosaceae	1	-	-	-
Mimosaceae	54	46 (85%)	25 (46%)	4 (7%)
Caesalpiniaceae	2	1 (50%)	-	-
Papilionaceae	91	80 (88%)	34 (37%)	1 (1%)
Geraniaceae	5	-	-	-
Oxalidaceae	1	-	-	-
Linaceae	1	-	-	-
Zygophyllaceae	3	-	-	-
Rutaceae	36	29 (78%)	12 (33%)	2 (6%)
Tremandraceae	2	2 (100%)	2 (100%)	-
Polygalaceae	8	5 (63%)	1 (13%)	-
Euphorbiaceae	18	10 (56%)	4 (22%)	1 (6%)
Stackhousiaceae	4	1 (25%)	-	-
Sapindaceae	8	5 (63%)	3 (28%)	-
Rhamnaceae	10	9 (90%)	4 (40%)	-
Malvaceae	6	-	-	-
Sterculiaceae	21	19 (91%)	11 (52%)	-
Dilleniaceae	11	11 (100%)	-	-
Clusiaceae	1	-	-	-
Frankeniaceae	1	1 (100%)	-	-
Violaceae	2	-	-	-
Thymelaeaceae	13	13 (100%)	1 (8%)	-
Myrtaceae	159	126 (79%)	61 (38%)	9 (6%)
Haloragaceae	4	3 (75%)	-	-
Apiaceae	17	6 (35%)	3 (18%)	-
Epacridaceae	58	53 (91%)	19 (33%)	1 (2%)
Primulaceae	3	1 (33%)	-	-
Loganiaceae	8	6 (75%)	3 (38%)	-
Gentianaceae	1	-	-	-
Menyanthaceae	1	1 (100%)	-	-
Apocynaceae	1	-	-	-
Convolvulaceae	5	-	-	-
Boraginaceae	3	-	-	-
Chloanthaceae	1	1 (100%)	1 (100%)	1 (100%)
Lamiaceae	9	5 (56%)	3 (33%)	1 (11%)
Solanaceae	7	3 (43%)	1 (14%)	1 (14%)
Scrophulariaceae	2	-	-	-
Orobanchaceae	1	-	-	-
Lentibulariaceae	2	-	-	-
Myoporaceae	10	8 (80%)	2 (20%)	1 (10%)
Plantaginaceae	1	-	-	-
Rubiaceae	5	4 (80%)	-	-
Campanulaceae	1	-	-	-
Lobeliaceae	6	3 (50%)	-	-
Goodeniaceae	35	26 (74%)	5 (14%)	3 (9%)
Stylidiaceae	24	20 (83%)	5 (21%)	2 (8%)
Asteraceae	57	13 (23%)	-	-
Total	1161	786 (68%)	275 (24%)	36 (3%)

Table 2. Genera of the Park flora with a high level of endemism in the Eyre Botanical District and/or the South-West Botanical Province

Genus	No. of taxa recorded in the Park	No. (and %) of Park taxa endemic to	
		Eyre Botanical District	S.W. Botanical Province
<i>Acacia</i>	54	25 (46%)	46 (85%)
<i>Eucalyptus</i>	46	21 (46%)	33 (72%)
<i>Melaleuca</i>	39	14 (36%)	29 (74%)
<i>Hakea</i>	29	10 (34%)	29 (100%)
<i>Leucopogon</i>	29	11 (38%)	26 (90%)
<i>Boronia</i>	20	7 (35%)	18 (90%)
<i>Stylidium</i>	20	5 (25%)	18 (90%)
<i>Banksia</i>	16	14 (88%)	16 (100%)
<i>Caladenia</i>	15	- (0%)	10 (67%)
<i>Lepidosperma</i>	15	- (0%)	12 (80%)
<i>Dryandra</i>	14	7 (50%)	14 (100%)
<i>Verticordia</i>	14	5 (36%)	14 (100%)
<i>Grevillea</i>	13	8 (62%)	10 (77%)
<i>Schoenus</i>	13	2 (15%)	11 (85%)
<i>Drosera</i>	12	- (0%)	11 (92%)
<i>Hibbertia</i>	11	- (0%)	11 (100%)
<i>Adenanthos</i>	10	7 (70%)	10 (100%)
<i>Pultenaea</i>	10	9 (90%)	10 (100%)
<i>Allocasuarina</i>	9	2 (22%)	8 (89%)
<i>Petrophile</i>	9	1 (11%)	9 (100%)
<i>Isopogon</i>	8	3 (38%)	8 (100%)
<i>Lasiopetalum</i>	8	7 (88%)	7 (88%)

Table 3. Number of native Park taxa which have their range of distribution extending into eastern Australia. Family sequence follows Green (1985)

Family	No. of taxa recorded in the Park	Native taxa extending into eastern Australia	
		No.	% of Park flora
Ophioglossaceae	1	1	100%
Adiantaceae	3	3	100%
Dennstaedtiaceae	1	1	100%
Aspleniaceae	2	2	100%
Cupressaceae	4	1	25%
Potamogetonaceae	1	1	100%
Juncaginaceae	4	3	75%
Poaceae	26	12	46%
Cyperaceae	53	18	34%
Restionaceae	23	2	9%
Centrolepidaceae	6	4	67%
Philydraceae	1	-	-
Juncaceae	5	4	80%
Dasypogonaceae	10	3	30%
Xanthorrhoeaceae	1	-	-
Phormiaceae	2	1	50%
Anthericaceae	16	5	31%
Colchicaceae	2	1	50%
Haemodoraceae	13	-	-

Table 3 (continued). Number of native Park taxa which have their range of distribution extending into eastern Australia. Family sequence follows Green (1985)

Family	No. of taxa recorded in the Park	Native taxa extending into eastern Australia	
		No.	% of Park flora
Hypoxidaceae	2	1	50%
Iridaceae	5	1	20%
Orchidaceae	47	21	45%
Casuarinaceae	9	-	-
Urticaceae	1	1	100%
Proteaceae	115	1	1%
Santalaceae	10	7	70%
Olacaceae	2	-	-
Loranthaceae	1	-	-
Polygonaceae	1	1	100%
Chenopodiaceae	28	24	86%
Amaranthaceae	5	1	20%
Gyrostemonaceae	2	-	-
Aizoaceae	5	3	60%
Molluginaceae	1	-	-
Portulacaceae	2	2	100%
Ranunculaceae	2	1	50%
Lauraceae	4	3	75%
Brassicaceae	3	1	33%
Droseraceae	12	1	8%
Crassulaceae	3	3	100%
Pittosporaceae	7	-	-
Rosaceae	1	-	-
Mimosaceae	54	4	7%
Caesalpinjiaceae	2	1	50%
Papilionaceae	91	10	11%
Geraniaceae	5	3	60%
Oxalidaceae	1	1	100%
Linaceae	1	1	100%
Zygophyllaceae	3	3	100%
Rutaceae	36	4	11%
Tremandraceae	2	-	-
Polygalaceae	8	2	25%
Euphorbiaceae	18	6	33%
Stackhousiaceae	4	2	50%
Sapindaceae	8	2	25%
Rhamnaceae	10	-	-
Malvaceae	6	5	83%
Sterculiaceae	21	2	10%
Dilleniaceae	11	-	-
Clusiaceae	1	1	100%
Frankeniaceae	1	-	-
Violaceae	2	1	50%
Thymelaeaceae	13	-	-
Myrtaceae	159	14	9%
Haloragaceae	4	1	25%
Apiaceae	17	11	65%
Epacridaceae	58	3	5%
Primulaceae	3	1	33%
Loganiaceae	8	2	25%
Gentianaceae	1	1	100%
Menyanthaceae	1	-	-
Apocynaceae	1	1	100%

Table 3 (continued). Number of native Park taxa which have their range of distribution extending into eastern Australia. Family sequence follows Green (1985)

Family	No. of taxa recorded in the Park	Native taxa extending into eastern Australia	
		No.	% of Park flora
Convolvulaceae	5	5	100%
Boraginaceae	3	2	66%
Chloanthaceae	1	-	-
Lamiaceae	9	3	33%
Solanaceae	7	1	14%
Scrophulariaceae	2	1	50%
Orobanchaceae	1	-	-
Lentibulariaceae	2	2	100%
Myoporaceae	10	2	20%
Plantaginaceae	1	1	100%
Rubiaceae	5	-	-
Campanulaceae	1	1	100%
Lobeliaceae	6	3	50%
Goodeniaceae	35	7	20%
Stylidiaceae	24	4	16%
Asteraceae	57	35	61%
Total	1161	283	24%

Species Richness

There are 1161 taxa recorded for the Park and as the Park has an area of some 2447 km², there are 0.47 species per km². The South-West Botanical Province has 0.018 species per km² which is considered to be a high figure by world standards (Marchant 1973). The Park lies in the southern eusp of the South-West Botanical Province, one of two areas in the Province considered to be rich in plant species. A second area is inland from Jurien Bay.

Hopper (1979) has attributed species richness in south-western Australia to a number of geohistorical circumstances. These include: (1) the saving of relict species through habitat continuity caused by the preservation of early Tertiary landscapes on the Great Plateau combined with the persistence of humid climatic conditions in the high rainfall zone; (2) the development of a sclerophyllous heathland flora on nutrient-deficient soils which resulted from the weathering of extensively formed lateritic soils since the Oligocene and/or Miocene until the present day; and (3) the erosional dynamism and recurrent climatic stresses in the transitional rainfall zone during the late Tertiary and Quaternary which favoured speciation.

The families Myrtaceae, Proteaceae and Papilionaceae have the richest flora in terms of the number of plant taxa recorded in the Park, followed by the Epacridaceae, Asteraceae, Mimosaceae, Cyperaceae, Orchidaceae, Rutaceae and Goodeniaceae (Table 4). Families with the highest percentage of taxa recorded in the Park, as compared with the approximate number of species in the South-West Botanical Province, are the Myrtaceae, Epacridaceae, Cyperaceae, Asteraceae, Orchidaceae, Rutaceae, Restionaceae, Poaceae, Sterculiaceae, Thymelaeaceae and Euphorbiaceae, each with over 30 percent (Table 4).

At the generic level, the families Myrtaceae, Papilionaceae, Proteaceae, Cyperaceae, Asteraceae, Orchidaceae, Chenopodiaceae and Anthericaceae have 15 or more genera recorded in

Table 4. Selected families with a high number of taxa recorded in the Park

Family	Taxa			Genera		
	No. in Park	No. in S.W. Botanical Province (approx.)	Park as % of S.W. Botanical Province	No. in Park	No. in S.W. Botanical Province	Park as % of S.W. Botanical Province
Myrtaceae	159	460	35%	25	30	83%
Proteaceae	115	420	27%	13	15	87%
Papilionaceae	91	330	28%	22	35	63%
Epacridaceae	58	160	36%	13	14	93%
Asteraceae	57	180	32%	32	36	88%
Mimosaceae	54	330	16%	1	2	50%
Cyperaceae	53	120	44%	13	20	65%
Orchidaceae	47	150	31%	13	21	62%
Rutaceae	36	70	51%	7	13	54%
Goodeniaceae	35	140	25%	7	13	54%
Poaceae	26	70	37%	19	40	47%
Chenopodiaceae	28	100	28%	11	16	69%
Stylidiaceae	24	90	27%	2	2	100%
Restionaceae	23	60	38%	9	17	53%
Sterculiaceae	21	60	35%	6	8	75%
Euphorbiaceae	18	40	45%	11	13	85%
Apiaceae	17	70	24%	6	15	40%
Anthericaceae	16	60	27%	11	16	69%
Thymelaeaceae	13	30	43%	1	1	100%
Haemodoraceae	13	50	26%	4	7	57%
Dilleniaceae	11	60	18%	1	1	100%
Droseraceae	12	50	24%	1	1	100%
Total	927	3100	30%	228	336	68%

the South-West Botanical Province with at least 60 percent of these genera represented in the Park (Table 4).

Several genera have in excess of 10 plant taxa recorded in the Park (Table 5). The highest numbers are in *Acacia*, *Eucalyptus*, *Melaleuca*, *Hakea* and *Leucopogon*, followed by *Stylidium*, *Boronia*, *Banksia*, *Caladenia* and *Lepidosperma*. Monotypic genera recorded in the Park are *Agrostocrinum*, *Harperia*, *Needhamiella*, *Nematolepis*, *Nuytsia*, *Oligarrhena*, *Philydrella*, *Rhadinothamnus*, *Siegfriedia*, and *Spartochloa* (Appendix 1).

Table 5. Genera with more than 10 taxa recorded in the Park

Genus	No. of taxa		Park as % of S.W. Botanical Province
	Park	S.W. Botanical Province (approx.)	
<i>Acacia</i>	54	330	16%
<i>Eucalyptus</i>	46	180	26%
<i>Melaleuca</i>	39	110	35%
<i>Hakea</i>	29	75	39%
<i>Leucopogon</i>	29	95	31%
<i>Stylidium</i>	20	100	20%
<i>Boronia</i>	20	40	50%
<i>Banksia</i>	16	60	27%
<i>Caladenia</i>	15	60	25%
<i>Lepidosperma</i>	15	30	50%
<i>Daviesia</i>	13	50	26%
<i>Dryandra</i>	14	55	25%
<i>Verticordia</i>	14	55	25%
<i>Grevillea</i>	13	140	9%
<i>Pimelea</i>	13	40	32%
<i>Schoenus</i>	13	50	26%
<i>Drosera</i>	12	45	27%
<i>Goodenia</i>	12	35	34%
<i>Adenanthos</i>	10	35	29%
<i>Pultenaea</i>	10	35	29%

Life Form

Phanerophytes make up the largest number in terms of life form in the Park flora with 790 plant taxa, or 68 percent of the Park flora, in this category (Table 6). Of these, the nanophanerophytes, number 667 or 57 percent of the Park flora. Hemicyptophytes include 143 taxa or 12 percent, followed by the therophytes, 123 or 10.5 percent, and geophytes, 74 or 6 percent.

The vegetation of the Park, discussed by Aplin and Newbey (1990), reflects the richness of the shrub layer. The paucity of geophytes contrasts strongly with the flora of the Cape region in South Africa (Milewski 1983), while the lack of therophytes contrasts with rich floras in other Mediterranean climatic regions (Raven 1973).

Table 6. Number of taxa in the Park in each life form category

Life form		No. in Park	% of Park flora
Symbol	Category		
1.	PHANEROPHYTES	790	68%
A.	Mesophanerophytes (Trees 5-50 m high)	13	1%
ST	Small trees (5-15 m)	9	
MT	Medium trees (15-30 m)	4	
B.	Microphanerophytes (Trees and shrubs 2-5 m high)	110	9%
DT	Dwarf trees (less than 5 m)	15	
TS	Tall shrubs (over 2 m)	60	
MA	Mallees	35	
C.	Nanophanerophytes (Shrubs less than 2 m high)	667	57%
DS	Dwarf woody shrubs (less than 0.5 m)	306	
SS	Small woody shrubs (0.5-1 m)	205	
MS	Medium woody shrubs (1-1.5 m)	79	
LS	Large woody shrubs (1.5-2 m)	50	
HP	Herbaceous shrubs	13	
CL	Climbers	14	
2.	CHAMAEPHYTES	31	3%
MP	Mat plants	31	
3.	HEMICRYPTOPHYTES	143	12%
RP	Rosetted perennials	21	
PG	Perennial grasses	20	
SC	Colonial sedges	14	
SI	Tufted sedges	57	
SL	Sedge-like plants	31	
4.	GEOPHYTES	74	6%
AB	Terrestrials	73	
HY	Hydrophytes	1	
5.	THEROPHYTES	123	10.5%
AS	Other annuals	117	
AG	Annual grasses	6	
6.	PARASITIC CLIMBERS	4	0.3%
PC	Parasitic climbers	4	

Topographical Distribution

Based on geology, landforms and soils, the Park has been divided into the following five broad units. Soils are well-drained unless stated otherwise.

1. *Peaks and ridges of quartzite and phyllitic schist.* Proterozoic quartzite and phyllitic schist have been faulted and folded to form the stony Barrens, Eyre Range etc. Quartzite weathers to siliceous sands and phyllitic schist into loamy sands, sometimes underlain by sandy clay. Soils are mainly skeletal and often only fill cracks and fissures in the bedrock. Deeper deposits of colluvium form at the base of some peaks and higher ridges.
2. *Plains.* This unit consists of two sub-units with different histories but similar floras. First is the extensive marine plain formed during the Eocene. Extensive areas of sediments were later lithified into spongolite. Soils developed over this bedrock consist of sands to clay loams overlying clay loams to sandy clays. Some areas are poorly drained and gilgai has developed. Second are small areas of Archaean granitic upland plain overlain by an ancient soil profile. Soils are similar to the first sub-unit but poorly drained areas are small and few.
3. *Gorges.* Incised into the spongolite of the marine plain are narrow to broad gorges. Where floors have developed, soils are loamy sands to clays over clay loam or clay. Fringing the gorges are cliffs, or stony slopes with skeletal soils.
4. *Major drainage lines and swamps.* Drainage lines are mainly within gorges of the marine plain but they also dissect the upland plain. Most drainage lines are saline and their associated alluvial deposits range from saline to non-saline, and experience varying degrees of water-logging. Swamps occur on large sections of the marine plain lacking co-ordinated drainage. Most contain a few centimetres of water each year, but fill to a depth of up to 60 - 150 cm from floods or abnormally wet winters. Most contain fresh water.
5. *Coastal dunes.* Along some sections of the coastline are narrow systems of coastal dunes. Most are stabilised by vegetation and consist of sands, either calcareous or siliceous.

There were considerably more species recorded in the elevated plains unit and in the unit comprising the major drainage lines and larger swamps than in the other three topographical units (Appendix 1, Table 7). The plains unit typically carry high open-shrubland and/or high shrubland. Many species were found in two or more units, eg., the dominant *Eucalyptus gardneri*, *E. nutans*, *E. tetragona*, *E. uncinata*, *Banksia lemanniana* and *B. media* were each recorded in four units, while at the other end of the scale, species such as *E. sepulcralis* and *E. coronata* were each restricted in their distribution to one topographical unit only.

Table 7. Number of taxa in each topographical unit of the Park

Topographical unit	No. of taxa
1. Peaks and ridges of Proterozoic quartzite and phyllitic schist	260
2. Plains	578
3. Gorges	394
4. Major drainage lines and swamps	480
5. Coastal dunes	245

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Appendix 1. Floristic list for the Fitzgerald River National Park

Families are listed in systematic order. Nomenclature follows Green (1985) except as indicated earlier. Genera and species are in alphabetical order within families.

Key to symbols.

*	=	Naturalised alien
Life form		
ST	=	Small trees (5-15 m)
MT	=	Medium trees (15-30 m)
DT	=	Dwarf trees (less than 5 m)
TS	=	Tall shrubs (over 2 m)
MA	=	Mallees
DS	=	Dwarf woody shrubs (less than 0.5 m)
SS	=	Small woody shrubs (0.5-1 m)
MS	=	Medium woody shrubs (1-1.5 m)
LS	=	Large shrubs (1.5-2 m)
HP	=	Herbaceous shrubs
CL	=	Climbers
MP	=	Mat plants
RP	=	Rosetted perennials
PG	=	Perennial grasses
SC	=	Colonial sedges
SI	=	Tufted sedges
SL	=	Sedge-like plants
AB	=	Terrestrial geophytes
HY	=	Hydrophytes
AS	=	Other annuals
AG	=	Annual grasses
PC	=	Parasitic climbers
Topog.		
1	=	Topography
2	=	Peaks and ridges of Proterozoic quartzite and phyllitic schist
3	=	Plains
4	=	Gorges
5	=	Major drainage lines and larger swamps
6	=	Coastal dunes
Endem.		
WA	=	Endemism (These classifications are based on the smallest phytogeographical unit in which the taxa occurs)
SW	=	Endemic to Western Australia
ER	=	Endemic to South-West Botanical Province (Beard 1980)
PK	=	Endemic to Eyre Botanical District (Beard 1980)
EA	=	Endemic to Park
EA	=	Range of distribution extends into eastern Australia (mainly Jessop 1984).

Family and species	Life form	Distribution	
		Topog.	Endem.
Ophioglossaceae			
<i>Ophioglossum lusitanicum</i> L.	AB	. . . 4 .	EA
Adiantaceae			
<i>Adiantum aethiopicum</i> L.	DS	1	EA
<i>Cheilanthes austrotenuifolia</i> Hl. Quirk & T.C. Chambers	DS	. . . 4 .	EA
<i>Cheilanthes distans</i> (R.Br.) Mett.	DS	. . 3 . .	EA

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Dennstaedtiaceae			
<i>Pteridium esculentum</i> (G. Forster) Cockayne	DS	1	EA
Aspleniaceae			
<i>Asplenium aethiopicum</i> (Burm.f.) Bech.	DS	1	EA
<i>Pleurosorus ruifolius</i> (R.Br.) Fee	DS	1	EA
Cupressaceae			
<i>Actinostrobus pyramidalis</i> Miq.	LS	. . . 4.	SW
<i>Callitris drummondii</i> (Parl.) F. Muell.	LS	. 2 3 4 5	ER
<i>Callitris preissii</i> Miq. subsp. <i>preissii</i>	TS	. . 3 4.	EA
<i>Callitris roei</i> (Endl.) F. Muell.	TS	. . 3 . .	SW
Potamogetonaceae			
<i>Ruppia maritima</i> L.	HY	. . . 4.	EA
Juncaginaceae			
<i>Triglochin calcitrapa</i> Hook.	AS	. . . 4.	EA
<i>Triglochin centrocarpa</i> Hook.	AS	. . . 4.	EA
<i>Triglochin minutissima</i> F. Muell.	AS	. . . 4.	WA
<i>Triglochin mucronata</i> R.Br.	AS	. . . 4.	EA
Poaceae			
<i>Agrostis avenacea</i> J. Gmelin var. <i>avenacea</i>	PG	. . . 4.	EA
* <i>Aira cupaniana</i> Guss.	AG	. . . . 5	
* <i>Ammophila arenaria</i> (L.) Link	PG	. . . . 5	
<i>Amphipogon debilis</i> R.Br. var. <i>debilis</i>	PG	. . . 4.	SW
<i>Amphipogon turbinatus</i> R.Br.	PG	. 2 3 4 5	WA
* <i>Briza minor</i> L.	AG	. . . 4.	
* <i>Chloris truncata</i> R.Br.	AG	. . . 4.	
<i>Cymbopogon bombycinus</i> (R.Br.) Domin	PG	. . . 4.	WA
<i>Danthonia caespitosa</i> Gaudich. var. <i>caespitosa</i>	PG	. . 3 4.	EA
<i>Danthonia setacea</i> R.Br.	PG	. . 3 4.	EA
<i>Eragrostis dielsii</i> Pilger ex Diels & E. Pritzel	PG	. . . 4.	EA
* <i>Lagurus ovatus</i> L.	AG	. . . . 5	
<i>Neurachne alopecuroidea</i> R.Br.	PG	. 2. 4.	EA
* <i>Pentaschistis airoides</i> (Nees) Stapf	AG	. . . . 5	
<i>Poa poiformis</i> (Labill.) Druce	PG	. . . . 5	EA
<i>Poa serpentum</i> Nees	PG	. . . . 5	SW
<i>Spartochloa scirpoidea</i> (Steudel) C.E. Hubb.	PG	. . . 4.	WA
<i>Spinifex hirsutus</i> Labill.	PG	. . . . 5	EA
<i>Sporobolus virginicus</i> (L.) Kunth	PG	. . . 4 5	EA
<i>Stipa elegantissima</i> Labill.	PG	. 2 3 4.	EA
<i>Stipa hemipogon</i> Benth.	PG	. 2. . .	EA
<i>Stipa juncifolia</i> Hughes	PG	. . . 4.	ER
<i>Stipa pycnostachya</i> Benth.	PG	. . . . 5	SW
<i>Stipa trichophylla</i> Benth.	PG	. . . 4.	EA
<i>Themeda australis</i> (R.Br.) Stapf	PG	. . . 4.	EA
* <i>Trisetaria cristata</i> (L.) Kerguelen	AG	. . . 4.	
Cyperaceae			
<i>Baumea articulata</i> (R.Br.) S.T. Blake	SC	. . . 4.	EA
<i>Baumea juncea</i> (R.Br.) Palla	SC	. . . 4.	EA
<i>Bulboschoenus caldwellii</i> (V. Cook) Sojak	SC	. . . 4.	EA
<i>Cautis dioica</i> R.Br.	SI	. 2. 4.	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Chorizandra enodis</i> Nees	SC	. . . 4 .	EA
<i>Cyathochaeta avenacea</i> Benth.	SI	. 2 . 4 .	SW
<i>Cyathochaeta clandestina</i> (R.Br.) Benth.	SI	. 2 . 4 5	SW
* <i>Cyperus sanguinolentus</i> M. Vahl	AS	. . . 4 .	
* <i>Cyperus tenellus</i> L.f.	AS	. . . 4 .	
<i>Gahnia ancistrophylla</i> Benth.	SC	. . 3 4 5	EA
<i>Gahnia australis</i> (Nees) K.L. Wilson	SC	. 2 . . .	SW
<i>Gahnia decomposita</i> (R.Br.) Benth.	SI	. . . 4 .	SW
<i>Gahnia deusta</i> (R.Br.) Benth.	SI	. 2 . . .	EA
<i>Gahnia drummondii</i> (Steudel) K.L. Wilson	SI	. . 3 . .	SW
<i>Gahnia lanigera</i> (R.Br.) Benth.	SC	. . . . 5	EA
<i>Gahnia trifida</i> Labill.	SI	. 2 3 4 5	EA
<i>Isolepis cernua</i> (M. Vahl) Roemer & Schultes	AS	1 . . 5	EA
<i>Isolepis congrua</i> Nees	AS	. . . 4 .	EA
<i>Isolepis marginata</i> (Thunb.) A. Dietr.	AS	. 2 . 4 .	EA
<i>Isolepis nodosa</i> (Rottb.) R.Br.	SI	. . . 4 5	EA
<i>Lepidosperma brunonianum</i> Nees	SC	. 2 3 4 .	SW
<i>Lepidosperma carphoides</i> F. Muell. ex Benth.	SI	. 2 . . .	EA
<i>Lepidosperma drummondii</i> Benth.	SI	. 2 . 4 .	SW
<i>Lepidosperma effusum</i> Benth.	SI	. . . 4 .	SW
<i>Lepidosperma gladiatum</i> Labill.	SI	. . . 4 5	EA
<i>Lepidosperma gracile</i> R.Br.	SI	. 2 3 4 .	SW
<i>Lepidosperma leptophyllum</i> Benth.	SI	. . . 4 .	SW
<i>Lepidosperma leptostachyum</i> Benth.	SI	. . 3 4 .	SW
<i>Lepidosperma pruinosum</i> Kuek.	SI	. . 3 . .	SW
<i>Lepidosperma pubisquamum</i> Steudel	SI	. 2 . . .	SW
<i>Lepidosperma squamatum</i> Labill.	SI	. 2 3 4 5	SW
<i>Lepidosperma tenue</i> Benth.	SI	. 2 . 4 .	SW
<i>Lepidosperma tuberculatum</i> Nees	SI	. 2 . . 5	SW
<i>Lepidosperma ustulatum</i> Steudel	SI	. 2 . . .	SW
<i>Lepidosperma viscidum</i> R.Br.	SI	. . 3 . .	EA
<i>Mesomelaena stygia</i> (R.Br.) Nees subsp. <i>stygia</i>	SI	. 2 3 . 5	SW
<i>Mesomelaena tetragona</i> (R.Br.) Benth.	SI	. 2 . 4 .	SW
<i>Schoenus armeria</i> Boeckler	SI	. 2 . . .	SW
<i>Schoenus brevifolius</i> R.Br.	SI	. 2 . . .	ER
<i>Schoenus curvifolius</i> (R.Br.) Benth.	SI	. 2 . . .	SW
<i>Schoenus graminatophyllus</i> F. Muell.	SI	1 2 . . .	SW
<i>Schoenus grandiflorus</i> (Nees) F. Muell.	SI	. . . . 5	SW
<i>Schoenus humilis</i> Benth.	AS	. . . 4 .	SW
<i>Schoenus lanatus</i> Labill.	SI	. 2 . . .	SW
<i>Schoenus nanus</i> (Nees) Benth.	AS	. . . 4 .	EA
<i>Schoenus odontocarpus</i> F. Muell.	AS	. . . 4 .	SW
<i>Schoenus sculptus</i> (Nees) Boeckler	AS	. . . 4 .	EA
<i>Schoenus subbarbatus</i> Kuek.	SI	1	SW
<i>Schoenus subflavus</i> Kuek.	SI	. 2 . . .	SW
<i>Schoenus sublaxus</i> Kuek.	SI	1 . . 4 .	ER
<i>Tetraria capillaris</i> (F. Muell.) J. Black	SI	. . . 4 .	EA
<i>Tricostularia neesii</i> Lehm. var. <i>neesii</i>	SI	1 2 . . .	SW
<i>Tricostularia neesii</i> Lehm. var. <i>elatior</i> Benth.	SI	1 2 . 4 .	SW
Restionaceae			
<i>Alexgeorgea nitens</i> (Nees) L. Johnson & B. Briggs	SI	1 2 . . .	SW
<i>Anarthria gracilis</i> R.Br.	SI	. 2 . 4 .	SW
<i>Anarthria humilis</i> Nees	SI	. 2 . . .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Anarthria laevis</i> R.Br.	SI	. 2 3 4 5	SW
<i>Anarthria polyphylla</i> Nees	SI	. 2 . . .	SW
<i>Anarthria prolifera</i> R.Br.	SI	. 2 . . .	SW
<i>Anarthria scabra</i> R.Br.	SI	1 2 . . .	SW
<i>Harperia lateriflora</i> W. Fitzg.	SI	. 2 . 4 .	SW
<i>Hypolaena exsulca</i> R.Br.	SI	. 2 . 4 .	SW
<i>Hypolaena fastigiata</i> R.Br.	SI	. 2 . . .	EA
<i>Lepidobolus chaetocephalus</i> F. Muell.	SI	. 2 . . .	SW
<i>Lepidobolus preissianus</i> Nees	SI	. . . 4 .	SW
<i>Leptocarpus canus</i> Lindley & Nees	SC	. . . 4 .	SW
<i>Leptocarpus humilis</i> Gilg	SI	. 2 . . .	SW
<i>Leptocarpus tenellus</i> (Nees) F. Muell.	SI	. 2 . . .	SW
<i>Loxocarya cinerea</i> R.Br.	SI	. 2 . . .	SW
<i>Loxocarya fasciculata</i> (R.Br.) Benth.	SI	. 2 3 . .	EA
<i>Loxocarya flexuosa</i> (R.Br.) Benth.	SC	. 2 3 . 5	SW
<i>Lyginia barbata</i> R.Br.	SI	. 2 . 4 5	SW
<i>Restio crispatus</i> R.Br.	SI	1 2 . . .	ER
<i>Restio laxus</i> R.Br.	SC	. . . 4 .	SW
<i>Restio megalotheca</i> F. Muell.	SI	. . . 4 .	SW
<i>Restio sphacelatus</i> R.Br.	SI	1 2 . . .	SW
Centrolepidaceae			
<i>Aphelia brizula</i> F. Muell.	AS	. . . 4 .	SW
<i>Centrolepis aristata</i> (R.Br.) Roemer & Schultes	AS	. . . 4 .	EA
<i>Centrolepis drummondiana</i> (Nees) Walp.	AS	. . . 4 .	EA
<i>Centrolepis pilosa</i> Hieron.	AS	. . . 4 .	SW
<i>Centrolepis polygyna</i> (R.Br.) Hieron.	AS	1 . . 4 5	EA
<i>Centrolepis strigosa</i> (R.Br.) Roemer & Schultes	AS	. . . 4 .	EA
Philydraceae			
<i>Philydrella pygmaea</i> (R.Br.) Canel	AB	. . . 4 .	SW
Juncaceae			
* <i>Juncus bufonius</i> L.	AS	. . . 4 .	
<i>Juncus kraussii</i> Hochst.	SC	. . . 4 .	EA
<i>Juncus pallidus</i> R.Br.	SI	. . 3 4 .	EA
<i>Juncus pauciflorus</i> R.Br.	SC	. . . 4 .	EA
<i>Juncus subsecundus</i> Wakef.	SC	. . . 4 .	EA
Dasypogonaceae			
<i>Calectasia cyanea</i> R.Br.	DS	. 2 . . .	SW
<i>Chamaexeros serra</i> (Endl.) Benth.	SL	. 2 . . .	SW
<i>Dasypogon bromeliifolius</i> R.Br.	SL	1 2 . . .	SW
<i>Lomandra collina</i> (R.Br.) Ewart	SL	. 2 3 . 5	EA
<i>Lomandra effusa</i> (Lindley) Ewart	SL	. . . 4 .	EA
<i>Lomandra hastilis</i> (R.Br.) Ewart	SL	. 2 . . 5	SW
<i>Lomandra micrantha</i> (Endl.) Ewart subsp. <i>micrantha</i>	SL	. 2 3 4 .	EA
<i>Lomandra mucronata</i> (R.Br.) A. Lee	SL	. 2 3 . .	SW
<i>Lomandra nigricans</i> T.D. Macfarlane	SL	. 2 . . .	SW
<i>Lomandra rupestris</i> (Endl.) Ewart	SL	. . . 4 .	SW
Xanthorrhoeaceae			
<i>Xanthorrhoea platyphylla</i> D.J. Bedford	SL	1 2 3 . .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Phormiaceae			
<i>Dianella revoluta</i> R.Br.	SL	. 2 3 4 5	EA
<i>Stypandra imbricata</i> R.Br.	DS	1. 3 4.	WA
Anthericaceae			
<i>Agrostocrinum scabrum</i> (R.Br.) Baillon	SL	. 2 3. .	SW
<i>Arthropodium preissii</i> Endl.	AB	. . . 4.	WA
<i>Borya constricta</i> D.M. Churchill	SL	. 2 3 4.	WA
<i>Caesia parviflora</i> R.Br.	AB	. . . 4 5	EA
<i>Chamaescilla corymbosa</i> (R.Br.) F. Muell. ex Benth.	AB	. . . 4.	EA
<i>Chamaescilla spiralis</i> (Endl.) F. Muell. ex Benth.	AB	. 2 3 4.	SW
<i>Corynotheca micrantha</i> (Lindley) J.F. MacBr.	DS	. . . . 5	WA
<i>Johnsonia acaulis</i> Endl.	SL	. 2. 4.	SW
<i>Laxmannia brachyphylla</i> F. Muell. ex Benth.	DS	. 2 3 4.	ER
<i>Laxmannia grandiflora</i> Lindley	DS	. 2 3. .	SW
<i>Laxmannia sessiliflora</i> Decne.	DS	. 2. . .	EA
<i>Stawellia gymnocephala</i> Diels	AB	. 2. . .	ER
<i>Thysanotus dichotomus</i> (Labill.) R.Br.	DS	. 2. 4 5	SW
<i>Thysanotus parviflorus</i> N.H. Brittan	AB	1. . . .	ER
<i>Thysanotus patersonii</i> R.Br. subsp. <i>patersonii</i>	AB	. 2 3 4.	EA
<i>Tricoryne elatior</i> R.Br.	DS	. . . . 5	EA
Colchicaceae			
<i>Burchardia umbellata</i> R.Br.	AB	. . 3 4.	EA
<i>Wurmbea tenella</i> (Endl.) Benth.	AB	. . . 4.	SW
Haemodoraceae			
<i>Anigozanthos humilis</i> Lindley	SL	. 2. . .	SW
<i>Anigozanthos rufus</i> Labill.	SL	. 2. . .	ER
<i>Conostylis androstemna</i> F. Muell. subsp. <i>argentea</i> J.W. Green	SL	. 2 3. .	SW
<i>Conostylis aurea</i> Lindley	SL	. 2. . .	SW
<i>Conostylis bealiana</i> F. Muell.	SL	. 2. . .	WA
<i>Conostylis petrophiloides</i> F. Muell. ex Benth.	SL	1 2. . .	SW
<i>Conostylis seorsiflora</i> F. Muell.	SL	. 2. 4 5	ER
<i>Conostylis serrulata</i> R.Br.	SL	. . . 4.	SW
<i>Conostylis setigera</i> R.Br.	SL	. 2 3. .	SW
<i>Conostylis vaginata</i> Endl.	SL	1 2. . .	ER
<i>Haemodorum paniculatum</i> Lindley	SL	. 2. . .	SW
<i>Haemodorum spicatum</i> R.Br.	SL	. 2. . .	SW
<i>Tribonanthes violacea</i> Endl.	AB	. . . 4.	SW
Hypoxidaceae			
<i>Hypoxis glabella</i> R.Br.	AB	. . . 4.	EA
<i>Hypoxis leptantha</i> Benth.	AB	. . . 4.	SW
Iridaceae			
<i>Orthrosanthus laxus</i> (Endl.) Benth.	SL	. . 3. .	ER
<i>Patersonia juncea</i> Lindley	SL	. 2. . .	SW
<i>Patersonia lanata</i> R.Br.	SL	. 2. . 5	ER
<i>Patersonia occidentalis</i> R.Br.	SL	1 2. . .	EA
<i>Patersonia unbroosa</i> Endl. var. <i>unbroosa</i>	SL	. 2. . .	SW
Orchidaceae			
<i>Acianthus reniformis</i> (R.Br.) Schltr. var. <i>reniformis</i>	AB	1. . . 5	EA
<i>Caladenia aphylla</i> Benth.	AB	. 2. . .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Caladenia barbarossa</i> H.G. Reichb.	AB	1 . . 4 .	SW
<i>Caladenia deformis</i> R.Br.	AB	1 2 . . .	EA
<i>Caladenia dilatata</i> R.Br. var. <i>falcata</i> Nicholls	AB	. . . 3 . .	SW
<i>Caladenia ericksonae</i> Nicholls	AB	. . . 4 .	SW
<i>Caladenia filamentosa</i> R.Br. var. <i>denticulata</i> (Lindley) H.G. Reichb.	AB	. . . 4 .	WA
<i>Caladenia flava</i> R.Br.	AB	1 2 3 . .	SW
<i>Caladenia hirta</i> Lindley	AB	1	SW
<i>Caladenia huegelii</i> H.G. Reichb.	AB	1	EA
<i>Caladenia latifolia</i> R.Br.	AB	1	EA
<i>Caladenia longicauda</i> Lindley	AB	1 . . 4 .	SW
<i>Caladenia menziesii</i> R.Br.	AB	1	EA
<i>Caladenia nana</i> Endl.	AB	1	SW
<i>Caladenia roei</i> Benth.	AB	. . . 4 .	SW
<i>Caladenia saccharata</i> H.G. Reichb.	AB	. 2 . . .	SW
<i>Cryptostylis ovata</i> R.Br.	AB	. . . 4 .	SW
<i>Diuris emarginata</i> R.Br.	AB	. 2 . . .	EA
<i>Diuris longifolia</i> R.Br.	AB	1 2 3 . .	EA
<i>Diuris setacea</i> R.Br.	AB	. 2 . . .	SW
<i>Elythranthera brunonis</i> (Endl.) A.S. George	AB	1 2 . . .	SW
<i>Eriochilus dilatatus</i> Lindley	AB	. 2 . . .	SW
<i>Eriochilus scaber</i> Lindley	AB	1 2 . . .	SW
<i>Leporella fimbriata</i> (Lindley) A.S. George	AB	. 2 3 . .	EA
<i>Lyperanthus nigricans</i> R.Br.	AB	. 2 3 . .	EA
<i>Microtis unifolia</i> (G. Forster) H.G. Reichb.	AB	. . . 4 5	EA
<i>Paracaleana nigrita</i> (Lindley) Blaxell	AB	1	SW
<i>Prasophyllum elatum</i> R.Br.	AB	1	EA
<i>Prasophyllum fimbria</i> H.G. Reichb.	AB	1	SW
<i>Prasophyllum gibbosum</i> R.Br.	AB	1	SW
<i>Prasophyllum hians</i> H.G. Reichb.	AB	1	SW
<i>Prasophyllum macrostachyum</i> R.Br. var. <i>ringens</i> (H.G. Reichb.) A.S. George	AB	. . 3 . .	EA
<i>Prasophyllum nigricans</i> R.Br.	AB	. . 3 . .	EA
<i>Prasophyllum sargentii</i> (Nicholls) A.S. George	AB	1	SW
<i>Pterostylis nana</i> R.Br.	AB	1 . . . 5	EA
<i>Pterostylis plumosa</i> L. Cady	AB	1 . . 4 .	EA
<i>Pterostylis recurva</i> Benth.	AB	. . 3 . .	SW
<i>Pterostylis sargentii</i> C.R.P. Andrews	AB	1	SW
<i>Pterostylis scabra</i> Lindley var. <i>robusta</i> (R.S. Rogers) A.S. George	AB	. . 3 . .	EA
<i>Pterostylis vittata</i> Lindley var. <i>vittata</i>	AB	1 . 3 . .	EA
<i>Thelymitra antennifera</i> (Lindley) J.D. Hook.	AB	. 2 3 . .	EA
<i>Thelymitra campanulata</i> Lindley	AB	. . 3 4 .	SW
<i>Thelymitra canaliculata</i> R.Br.	AB	. 2 . . .	EA
<i>Thelymitra crinita</i> Lindley	AB	. 2 . . .	SW
<i>Thelymitra fuscolutea</i> R.Br. var. <i>fuscolutea</i>	AB	1 2 . . .	EA
<i>Thelymitra nuda</i> R.Br.	AB	. 2 . . .	EA
<i>Thelymitra variegata</i> (Lindley) F. Muell.	AB	. 2 . . .	SW
Casuarinaceae			
<i>Allocasuarina acutaria</i> (F. Muell.) L. Johnson	LS	. 2 . . .	ER
<i>Allocasuarina campestris</i> (Diels) L. Johnson subsp. <i>campestris</i>	LS	1 . 3 . .	SW
<i>Allocasuarina huegeliana</i> (Miq.) L. Johnson	TS	. . 3 4 .	SW
<i>Allocasuarina humilis</i> (Otto and Dietr.) L. Johnson	MS	1 2 3 4 .	SW
<i>Allocasuarina lehmanniana</i> (Miq.) L. Johnson	TS	. 2 . 4 5	SW
<i>Allocasuarina microstachya</i> (Miq.) L. Johnson	DS	. 2 3 . .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Allocasuarina scleroclada</i> (L. Johnson) L. Johnson	LS	1 2 3 . .	WA
<i>Allocasuarina thuyoides</i> (Miq.) L. Johnson	SS	1 2 3 . 5	SW
<i>Allocasuarina trichodon</i> (Miq.) L. Johnson	TS	1 2 3 . .	ER
Urticaceae			
<i>Parietaria debilis</i> G. Forster	AS	. . 3 . .	EA
Proteaceae			
<i>Adenanthos cacomorphus</i> E.C. Nelson	MS	. 2 . . .	PK
<i>Adenanthos cuneatus</i> Labill.	MS	. 2 . . .	SW
<i>Adenanthos dobagii</i> E.C. Nelson	SS	1 2 . . .	PK
<i>Adenanthos ellipticus</i> A.S. George	TS	1	PK
<i>Adenanthos flavidiflorus</i> F. Muell.	SS	. 2 . . .	SW
<i>Adenanthos glabrescens</i> E.C. Nelson subsp. <i>exasperata</i> E.C. Nelson	SS	. 2 . . .	ER
<i>Adenanthos labillardierei</i> E.C. Nelson	MS	1	PK
<i>Adenanthos oreophilus</i> E.C. Nelson	LS	1	ER
<i>Adenanthos sericeus</i> Labill. subsp. <i>sericeus</i>	TS	1 2 . . .	SW
<i>Adenanthos venosus</i> Meissner	LS	1	PK
<i>Banksia attenuata</i> R.Br.	DT	1 2 . . .	SW
<i>Banksia baueri</i> R.Br.	MS	1 2 . . .	ER
<i>Banksia baxteri</i> R.Br.	TS	1 2 . . .	ER
<i>Banksia caleyi</i> R.Br.	LS	. 2 3 4 .	ER
<i>Banksia coccinea</i> R.Br.	TS	1 2 . . .	ER
<i>Banksia dryandroides</i> Baxter ex Sweet	SS	. 2 3 . 5	ER
<i>Banksia gardneri</i> A.S. George var. <i>hiemalis</i> A.S. George	DS	1 2 . . 5	SW
<i>Banksia laevigata</i> Meissner subsp. <i>laevigata</i>	TS	. . 3 . .	ER
<i>Banksia lemanniana</i> Meissner	TS	1 2 3 . 5	ER
<i>Banksia media</i> R.Br.	TS	. 2 3 4 5	ER
<i>Banksia nutans</i> R.Br. var. <i>nutans</i>	SS	1 2 . 4 .	ER
<i>Banksia oreophila</i> A.S. George	LS	1 2 . . .	ER
<i>Banksia pulchella</i> R.Br.	SS	. 2 . . .	ER
<i>Banksia repens</i> Labill.	DS	. 2 . . .	ER
<i>Banksia speciosa</i> R.Br.	TS	1 2 . . .	ER
<i>Banksia violacea</i> C. Gardner	SS	1 2 3 . .	ER
<i>Conospermum bracteosum</i> Meissner	SS	. 2 . 4 .	SW
<i>Conospermum caeruleum</i> R.Br.	SS	. 2 . . .	SW
<i>Conospermum distichum</i> R.Br.	SS	1 2 . . .	SW
<i>Conospermum floribundum</i> Benth.	DS	. 2 . . .	SW
<i>Conospermum leianthum</i> E. Pritzel	SS	. 2 . . .	ER
<i>Conospermum petiolare</i> R.Br.	DS	1 2 . . .	ER
<i>Conospermum teretifolium</i> R.Br.	MS	1 2 . . .	ER
<i>Dryandra arctotidis</i> R.Br.	DS	1 2 3 . .	ER
<i>Dryandra armata</i> R.Br.	SS	1 2 . . .	SW
<i>Dryandra cirsioides</i> Meissner	MS	. 2 3 . .	SW
<i>Dryandra conferta</i> Benth.	SS	. 2 . . .	SW
<i>Dryandra cuneata</i> R.Br.	MS	. 2 . . .	ER
<i>Dryandra falcata</i> R.Br.	LS	1 2 3 . .	ER
<i>Dryandra foliosissima</i> C. Gardner	MS	. 2 . . .	ER
<i>Dryandra nivea</i> (Labill.) R.Br.	DS	1 2 . 4 5	SW
<i>Dryandra obtusa</i> R.Br.	DS	. 2 . 4 .	ER
<i>Dryandra plumosa</i> R.Br.	MS	1 2 . 4 .	ER
<i>Dryandra pteridifolia</i> R.Br.	SS	1 2 3 4 5	SW
<i>Dryandra quercifolia</i> Meissner	LS	1 2 3 . 5	ER
<i>Dryandra sessilis</i> (Knight) Domin	TS	. . . . 5	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Dryandra tenuifolia</i> R.Br.	DS	. 2 3 4 5	SW
<i>Franklandia fucifolia</i> R.Br.	SS	. 2 . . .	SW
<i>Grevillea coccinea</i> Meissner	MS	. 2 3 . .	ER
<i>Grevillea fasciculata</i> R.Br.	SS	. 2 . . .	ER
<i>Grevillea fistulosa</i> A.S. George	SS	1	PK
<i>Grevillea haplantha</i> F. Muell. ex Benth.	SS	. 2 . . .	SW
<i>Grevillea huegelii</i> Meissner	SS	. . 3 . .	EA
<i>Grevillea infundibularis</i> A.S. George	SS	1	PK
<i>Grevillea nudiflora</i> Meissner	DS	1 2 3 4 5	ER
<i>Grevillea paniculata</i> Meissner	TS	. . . 4 .	WA
<i>Grevillea patenuloba</i> F. Muell.	SS	. 2 3 . .	ER
<i>Grevillea pauciflora</i> R.Br.	MS	. 2 3 4 .	WA
<i>Grevillea pectinata</i> R.Br.	MS	. . 3 4 .	ER
<i>Grevillea tetragonoloba</i> Meissner	TS	. 2 . . .	SW
<i>Grevillea tripartita</i> Meissner	TS	. 2 3 4 5	ER
<i>Hakea baxteri</i> R.Br.	TS	. 2 . . .	ER
<i>Hakea cinerea</i> R.Br.	MS	. 2 . . .	ER
<i>Hakea commulata</i> F. Muell.	MS	. 2 3 . .	SW
<i>Hakea corymbosa</i> R.Br.	LS	. 2 3 4 5	ER
<i>Hakea crassifolia</i> Meissner	TS	1 2 3 4 5	ER
<i>Hakea cucullata</i> R.Br.	TS	1 2 . . .	ER
<i>Hakea falcata</i> R.Br.	SS	. 2 . . .	SW
<i>Hakea ferruginea</i> Sweet	LS	1 2 3 4 .	SW
<i>Hakea florida</i> R.Br.	TS	1 . . 4 .	SW
<i>Hakea hookeriana</i> Meissner	TS	1	PK
<i>Hakea incrassata</i> R.Br.	DS	1 2 . . .	SW
<i>Hakea laurina</i> R.Br.	DT	1 2 3 4 .	ER
<i>Hakea lehmanniana</i> Meissner	SS	. 2 3 . .	SW
<i>Hakea lissocarpa</i> R.Br.	LS	. 2 3 4 5	SW
<i>Hakea marginata</i> R.Br.	SS	. 2 3 4 5	SW
<i>Hakea nitida</i> R.Br.	TS	. 2 3 4 5	SW
<i>Hakea obliqua</i> R.Br.	LS	. 2 3 4 5	SW
<i>Hakea obtusa</i> Meissner	LS	1 2 3 . .	ER
<i>Hakea oleifolia</i> (Smith) R.Br.	DT	. . . . 5	SW
<i>Hakea prostrata</i> R.Br.	MS	. 2 . 4 5	SW
<i>Hakea rubriflora</i> Lamont	TS	. 2 . . .	ER
<i>Hakea ruscifolia</i> Labill.	LS	. 2 . . .	SW
<i>Hakea strumosa</i> Meissner	SS	. 2 3 4 .	SW
<i>Hakea suaveolens</i> R.Br.	LS	1	SW
<i>Hakea sulcata</i> R.Br.	SS	. 2 . 4 .	SW
<i>Hakea trifurcata</i> (Smith) R.Br.	LS	. 2 3 4 5	SW
<i>Hakea varia</i> R.Br.	MS	. 2 3 4 5	SW
<i>Hakea verrucosa</i> F. Muell.	TS	1 2 . . 5	SW
<i>Hakea victoria</i> J. Drum.	TS	1 2 . 4 5	ER
<i>Isopogon attenuatus</i> R.Br.	DS	1 2 . . 5	SW
<i>Isopogon buxifolius</i> R.Br.	SS	. 2 3 4 5	SW
<i>Isopogon formosus</i> R.Br.	SS	1 2 3 . .	SW
<i>Isopogon longifolius</i> R.Br.	MS	. 2 . . .	SW
<i>Isopogon polycephalus</i> R.Br.	MS	1 2 . . .	ER
<i>Isopogon teretifolius</i> R.Br.	SS	1 2 3 . .	SW
<i>Isopogon trilobus</i> R.Br.	MS	. 2 3 4 5	ER
<i>Isopogon tripartitus</i> R.Br.	MS	. 2 . 4 .	ER
<i>Lambertia inermis</i> R.Br.	TS	1 2 3 4 .	ER
<i>Persoonia dillwynioides</i> Meissner	LS	. 2 3 . .	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Persoonia teretifolia</i> R.Br.	LS	1 2 3 . .	ER
<i>Persoonia striata</i> R.Br.	DS	1 2 3 4 .	SW
<i>Petrophile divaricata</i> R.Br.	SS	1 2 . . .	SW
<i>Petrophile ericifolia</i> R.Br. var. <i>ericifolia</i>	MS	. 2 . . .	SW
<i>Petrophile fastigiata</i> R.Br.	SS	1 2 . . .	ER
<i>Petrophile longifolia</i> R.Br.	MP	. 2 . 4 .	SW
<i>Petrophile phyllicoides</i> R.Br.	DS	. 2 . . .	SW
<i>Petrophile rigida</i> R.Br.	DS	. 2 . . .	SW
<i>Petrophile seminuda</i> Lindley	DS	. 2 3 4 5	SW
<i>Petrophile squamata</i> R.Br.	SS	. 2 3 4 5	SW
<i>Petrophile teretifolia</i> R.Br.	DS	. 2 . 4 .	SW
<i>Stirlingia tenuifolia</i> (R.Br.) Steudel	DS	. 2 . 4 5	SW
<i>Synaphea favosa</i> R.Br.	DS	. 2 3 4 .	SW
<i>Synaphea polymorpha</i> R.Br.	DS	. 2 . . .	WA
<i>Synaphea reticulata</i> (Smith) C. Gardner	DS	. 2 . . .	SW
Santalaceae			
<i>Choretrum glomeratum</i> R.Br.	MS	. 2 3 . .	EA
<i>Exocarpos aphyllus</i> R.Br.	MS	. 2 3 4 5	EA
<i>Exocarpos sparteus</i> R.Br.	DT	1 2 3 4 5	EA
<i>Leptomeria axillaris</i> R.Br.	DS	1	ER
<i>Leptomeria pauciflora</i> R.Br.	MS	. . 3 . .	SW
<i>Leptomeria preissiana</i> (Miq.) A.DC.	MS	. . 3 . .	EA
<i>Leptomeria spinosa</i> (Miq.) A.DC.	DS	1 2 . 4 5	SW
<i>Santalum acuminatum</i> (R.Br.) A.DC.	DT	. . 3 4 .	EA
<i>Santalum murrayanum</i> (Mitch.) C. Gardner	DT	. . 3 . .	EA
<i>Santalum spicatum</i> (R.Br.) A.DC.	DT	. . . 4 .	EA
Olacaceae			
<i>Olax benthamiana</i> Miq.	SS	. 2 . . .	SW
<i>Olax phyllanthi</i> (Labill.) R.Br.	SS	. . . . 5	SW
Loranthaceae			
<i>Nuytsia floribunda</i> (Labill.) R.Br. ex Fenzl	DT	1 2 . . .	SW
Polygonaceae			
<i>Muehlenbeckia adpressa</i> (Labill.) Meissner	CL	. . 3 4 5	EA
Chenopodiaceae			
<i>Atriplex cinerea</i> Poir.	MS	. . . . 5	EA
<i>Atriplex isatidea</i> Moq.	MS	. . . . 5	WA
* <i>Atriplex prostrata</i> M. Boucher ex DC.	SS	. . . . 5	
<i>Chenopodium desertorum</i> (J. Black) J. Black subsp. <i>desertorum</i>	MP	. . . 4 .	EA
* <i>Chenopodium glaucum</i> L. subsp. <i>glaucum</i>	AS	. . . 4 .	
<i>Enchylaena tomentosa</i> R.Br. var. <i>tomentosa</i>	DS	. . 3 4 .	EA
<i>Halosarcia indica</i> (Willd.) Paul G. Wilson			
subsp. <i>bidens</i> (Nees) Paul G. Wilson	DS	. . . 4 .	EA
<i>Halosarcia indica</i> (Willd.) Paul G. Wilson			
subsp. <i>leiostachyum</i> (Benth.) Paul G. Wilson	DS	. . . 4 .	EA
<i>Halosarcia lepidosperma</i> Paul G. Wilson	DS	. . . 4 .	EA
<i>Halosarcia lylei</i> (Ewart & J. White) Paul G. Wilson	DS	. . . 4 .	EA
<i>Halosarcia pergranulata</i> (J. Black) Paul G. Wilson subsp. <i>pergranulata</i>	DS	. . . 4 .	EA
<i>Halosarcia pterygosperma</i> (J. Black) Paul G. Wilson	DS	. . . 4 .	EA
<i>Halosarcia syncarpa</i> Paul G. Wilson	DS	. . . 4 .	EA

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Halosarcia undulata</i> Paul G. Wilson	DS	. . . 4 .	EA
<i>Maireana brevifolia</i> (R.Br.) Paul G. Wilson	DS	. . 3 4 .	EA
<i>Maireana enchylaenoides</i> (F. Muell.) Paul G. Wilson	DS	. . . 4 .	EA
<i>Maireana erioclada</i> (Benth.) Paul G. Wilson	SS	. . . . 5	EA
<i>Maireana oppositifolia</i> (F. Muell.) Paul G. Wilson	DS	. . . . 5	EA
<i>Rhagodia baccata</i> (Labill.) Moq. subsp. <i>baccata</i>	MS	. . . . 5	EA
<i>Rhagodia crassifolia</i> R.Br.	DS	. . . 4 5	EA
<i>Rhagodia preissii</i> Moq. subsp. <i>preissii</i>	MS	. . . 4 5	EA
<i>Sarcocornia blackiana</i> (Ulbr.) A.J. Scott	DS	. . . . 5	EA
<i>Sarcocornia quinqueflora</i> (Bunge ex Ung.-Stemb.) A.J. Scott	DS	. . . 4 .	EA
<i>Sclerolaena uniflora</i> R.Br.	DS	. . . 4 .	EA
<i>Sclerostegia arbuscula</i> (R.Br.) Paul G. Wilson	DS	. . . 4 .	EA
<i>Sclerostegia moniliformis</i> Paul G. Wilson	SS	. . . 4 .	SW
<i>Suaeda australis</i> (R.Br.) Moq.	DS	. . . 4 5	EA
<i>Threlkeldia diffusa</i> R.Br.	DS	. . . . 5	EA
Amaranthaceae			
<i>Ptilotus drummondii</i> (Moq.) F. Muell. var. <i>elongatus</i> Benl	HP	. . 3 . .	PK
<i>Ptilotus humilis</i> (Nees) F. Muell. var. <i>humilis</i>	AS	. . . 4 .	SW
<i>Ptilotus spathulatus</i> (R.Br.) Poiret	HP	. . . 4 .	EA
<i>Ptilotus stirlingii</i> (Lindley) F. Muell. var. <i>laxus</i> (Benth.) Benl	HP	. . . . 5	SW
<i>Ptilotus stirlingii</i> (Lindley) F. Muell. var. <i>stirlingii</i>	HP	1	SW
Gyrostemonaceae			
<i>Gyrostemon sheathii</i> W. Fitzg.	HP	. 2 . . 5	SW
<i>Gyrostemon subnudus</i> (Nees) Baillon	HP	. . . 4 5	SW
Aizoaceae			
<i>Carpobrotus rossii</i> (Haw.) Schwantes	MP	1 . . 4 .	EA
<i>Carpobrotus virescens</i> (Haw.) Schwantes	MP	. . . 4 5	SW
<i>Disphyma crassifolium</i> (L.) L. Bolus	MP	. . 3 4 5	EA
* <i>Mesembryanthemum aitonis</i> Jacq.	MP	. . . . 5	
<i>Tetragonia implexicoma</i> (Miq.) J.D. Hook.	MP	. . . 4 5	EA
Molluginaceae			
<i>Macarthuria apetala</i> Harvey	DS	. . 3 . .	SW
Portulacaceae			
<i>Calandrinia calyptrata</i> J.D. Hook.	AS	. . . 4 .	EA
<i>Calandrinia corrigioloides</i> F. Muell. ex Benth.	AS	. . . 4 .	EA
Ranunculaceae			
<i>Clematis microphylla</i> DC.	CL	. . . . 5	EA
<i>Clematis pubescens</i> Huegel ex Endl.	CL	. . . 4 5	SW
Lauraceae			
<i>Cassytha flava</i> Nees	PC	. 2 . . .	SW
<i>Cassytha glabella</i> R.Br.	PC	1 2 3 4 5	EA
<i>Cassytha melantha</i> R.Br.	PC	. . 3 4 5	EA
<i>Cassytha racemosa</i> Nees	PC	. . . . 5	EA
Brassicaceae			
* <i>Cakile maritima</i> Scop.	AS	. . . . 5	

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Lepidium rotundum</i> (Desv.) DC.	DS	. . . 4.	EA
<i>Stenopetalum filifolium</i> Benth.	AS	. . . 4.	WA
Droseraceae			
<i>Drosera barbigera</i> Planchon	RP	. 2 . . .	SW
<i>Drosera bulbosa</i> Hook.	AB	. 2 . . .	SW
<i>Drosera glanduligera</i> Lehm.	AS	. . 3 4.	EA
<i>Drosera huegelii</i> Endl.	AB	. 2 . . .	SW
<i>Drosera macrantha</i> Endl.	AB	. 2 3 . .	SW
<i>Drosera macrophylla</i> Lindley	AB	. 2 3 4 .	SW
<i>Drosera menziesii</i> R.Br. subsp. <i>menziesii</i>	AB	1 2 3 4 5	SW
<i>Drosera neesii</i> Lehm. subsp. <i>neesii</i>	AB	. 2 3 . .	SW
<i>Drosera paleacea</i> DC.	RP	. 2 . . .	SW
<i>Drosera platypoda</i> Turcz.	AB	. 2 . . .	SW
<i>Drosera stolonifera</i> Endl. subsp. <i>compacta</i> N. Marchant	RP	. 2 3 . .	SW
<i>Drosera zonaria</i> Planchon	AB	. 2 3 . .	SW
Crassulaceae			
<i>Crassula colorata</i> (Nees) Ostenf. var. <i>colorata</i>	AS	. . . 4.	EA
<i>Crassula exserta</i> (Reader) Ostenf.	AS	. 2 3 4.	EA
<i>Crassula pedicellosa</i> (F. Muell.) Ostenf.	AS	. . . 4.	EA
Pittosporaceae			
<i>Billardiera bicolor</i> (Putterl.) E.M. Bennett	CL	1. 3. .	WA
<i>Billardiera coriacea</i> Benth.	CL	. . 3 . .	SW
<i>Billardiera sericea</i> (Turcz.) E.M. Bennett	CL	. 2 3 . .	SW
<i>Billardiera villosa</i> (Turcz.) E.M. Bennett	DS	1. . . .	ER
<i>Cheiranthra filifolia</i> Turcz.	SS	. 2 . . .	WA
<i>Pronaya fraseri</i> (Hook.) E.M. Bennett var. <i>minor</i> Benth.	CL	1. . . .	ER
<i>Sollya heterophylla</i> Lindley	CL	1 2 3 4 5	SW
Rosaceae			
* <i>Acaena echinata</i> Nees var. <i>echinata</i>	HP	. . . 4.	
Mimosaceae			
<i>Acacia acanthoclada</i> F. Muell.	SS	. 2 . . .	EA
<i>Acacia acellerata</i> Maiden & Blakely	SS	. . 3 4.	ER
<i>Acacia argutifolia</i> Maslin	MP	1. . . .	PK
<i>Acacia bidentata</i> Benth.	MP	. 2 3 4.	SW
<i>Acacia biflora</i> R.Br.	SS	. . . . 5	ER
<i>Acacia binata</i> Maslin	SS	. 2 . . .	ER
<i>Acacia browniana</i> H.L. Wendl. var. <i>browniana</i>	SS	. 2 3 4.	SW
<i>Acacia cedroides</i> Benth.	MS	1 2 . . .	PK
<i>Acacia chrysocephala</i> Maslin	DS	. 2 3 4 5	SW
<i>Acacia cochlearis</i> (Labill.) H.L. Wendl.	SS	. 2. 4. 5	SW
<i>Acacia crassiuscula</i> H.L. Wendl.	TS	1 2 . . .	SW
<i>Acacia cyclops</i> Cunn. ex Don	TS	. 2 3 4 5	EA
<i>Acacia delphina</i> Maslin	SS	. . . 4 5	ER
<i>Acacia dermatophylla</i> Benth.	TS	. . . 4.	ER
<i>Acacia drummondii</i> Lindley subsp. <i>candolleana</i> (Meissner) Maslin	LS	. 2 3 . .	SW
<i>Acacia empelioclada</i> Maslin	TS	. 2 . . .	ER
<i>Acacia ericifolia</i> Benth.	SS	. 2 3 . .	SW
<i>Acacia erinacea</i> Benth.	MP	. 2 . . .	EA
<i>Acacia ferocior</i> Maiden	DS	. . 3 . .	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Acacia glaucoptera</i> Benth.	SS	. . 3 4 .	SW
<i>Acacia gonophylla</i> Benth.	SS	. 2 3 4 5	ER
<i>Acacia harveyi</i> Benth.	TS	. 2 . . .	ER
<i>Acacia heteroclita</i> Meissner	MS	. . . 4 5	SW
<i>Acacia ingrata</i> Benth.	DS	. 2 . . .	ER
<i>Acacia ixiophylla</i> Benth.	SS	. . 3 4 .	WA
<i>Acacia larinina</i> Meissner	MP	. 2 . . .	ER
<i>Acacia lasiocalyx</i> C.R.P. Andrews	DT	. . 3 . .	WA
<i>Acacia lasiocarpa</i> Benth. var. <i>bracteolata</i> Maslin	DS	. 2 3 4 .	SW
<i>Acacia lasiocarpa</i> Benth. var. <i>sedifolia</i> (Meissner) Maslin	DS	. 2 . 4 .	SW
<i>Acacia leptoneura</i> Benth.	LS	. . 3 . .	WA
<i>Acacia littorea</i> Maslin	LS	. . . . 5	SW
<i>Acacia maxwellii</i> Maiden & Blakely	MP	. 2 3 4 .	ER
<i>Acacia microbotrya</i> Benth.	DT	. . . 4 .	WA
<i>Acacia moirii</i> E. Pritzel subsp. <i>dasycarpa</i> Maslin	DS	1 2 . . 5	ER
<i>Acacia moirii</i> E. Pritzel subsp. <i>moirii</i>	DS	. 2 3 . .	ER
<i>Acacia myrtifolia</i> (Smith) Willd.	MS	. 2 3 . .	EA
<i>Acacia nigricans</i> (Labill.) R.Br.	MS	1	ER
<i>Acacia nitidula</i> Benth.	MS	1	ER
<i>Acacia phlebopetala</i> Maslin var. <i>phlebopetala</i>	SS	1	ER
<i>Acacia phlebopetala</i> Maslin var. <i>pubescens</i> Maslin	SS	1	PK
<i>Acacia pilosa</i> Benth.	DS	. 2 3 4 .	ER
<i>Acacia pulchella</i> R.Br. var. <i>glaberrima</i> Meissner	MS	. . 3 4 .	SW
<i>Acacia pycnocephala</i> Maslin	TS	. 2 . . .	SW
<i>Acacia redolens</i> Maslin	TS	. . . 4 .	ER
<i>Acacia rostelifera</i> Benth.	TS	. . . 4 5	SW
<i>Acacia saligna</i> (Labill.) H.L. Wendl.	TS	. . . 4 5	SW
<i>Acacia simulans</i> Maslin	SS	. 2 . . .	PK
<i>Acacia squamata</i> Lindley	DS	. 2 . . .	SW
<i>Acacia subcaerulea</i> Lindley	TS	1 2 3 4 5	ER
<i>Acacia sulcata</i> R.Br. var. <i>platyphylla</i> Maiden & Blakely	SS	. . 3 . .	SW
<i>Acacia tetanophylla</i> Maslin	MS	1 2 . . .	ER
<i>Acacia tetragonocarpa</i> Meissner	DS	. 2 . . .	SW
<i>Acacia unifissilis</i> Court	SS	. 2 . . .	SW
<i>Acacia varia</i> Maslin var. <i>parviflora</i> (Benth.) Maslin	DS	. 2 3 4 .	SW
Caesalpiniaceae			
<i>Cassia nemophila</i> Cunn. ex Vogel var. <i>nemophila</i>	SS	. . . 4 .	EA
<i>Labichea lanceolata</i> Benth. subsp. <i>brevifolia</i> (Meissner) J.H. Ross	TS	. 2 3 4 .	SW
Papilionaceae			
<i>Bossiaea dentata</i> (R.Br.) Benth.	SS	1 . 3 . .	ER
<i>Bossiaea preissii</i> Meissner	SS	. 2 3 . 5	ER
<i>Bossiaea rufa</i> R.Br.	DS	. 2 . . 5	SW
<i>Brachysema celsianum</i> Lemaire	SS	. . . 4 .	SW
<i>Brachysema latifolium</i> R.Br.	MP	. 2 3 . .	ER
<i>Burtonia conferta</i> DC.	DS	. 2 3 4 5	SW
<i>Burtonia scabra</i> (Smith) R.Br.	SS	1 2 . . .	SW
<i>Chorizema aciculare</i> (DC.) C. Gardner	DS	. 2 3 . .	SW
<i>Chorizema cytisoides</i> Turcz.	DS	. 2 3 4 .	ER
<i>Chorizema glycinifolium</i> (Smith) Druce	DS	. 2 . . .	SW
<i>Chorizema nervosum</i> T. Moore	SS	. 2 3 4 .	ER
<i>Chorizema trigonum</i> Turcz.	DS	1 2 . . .	ER
<i>Chorizema uncinatum</i> C.R.P. Andrews	DS	. 2 . . .	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Daviesia alternifolia</i> Endl.	DS	1	SW
<i>Daviesia anceps</i> Turcz.	DS	. 2 3 . .	SW
<i>Daviesia benthamii</i> Meissner subsp. <i>benthamii</i>	MS	. 2 3 4 .	EA
<i>Daviesia decurrens</i> Meissner	DS	. 2 . . .	SW
<i>Daviesia flexuosa</i> Benth.	SS	. 2 . . .	SW
<i>Daviesia incrassata</i> Smith subsp. <i>incrassata</i>	SS	. 2 3 . .	EA
<i>Daviesia lancifolia</i> Turcz.	DS	. 2 3 4 .	SW
<i>Daviesia mollis</i> Turcz.	SS	. 2 3 4 .	SW
<i>Daviesia obtusifolia</i> F. Muell.	MS	. 2 . . .	ER
<i>Daviesia pachyphylla</i> F. Muell.	SS	. 2 3 . .	SW
<i>Daviesia reversifolia</i> F. Muell.	DS	1 2 3 . .	SW
<i>Daviesia striata</i> Turcz.	MS	1 2 3 . .	SW
<i>Daviesia teretifolia</i> R.Br. ex Benth.	DS	. 2 . . .	SW
<i>Dillwynia pungens</i> (Sweet) Mackay	SS	1	ER
<i>Eutaxia cuneata</i> Meissner	SS	1 2 3 4 .	ER
<i>Eutaxia densifolia</i> Turcz.	DS	. . . 4 .	SW
<i>Eutaxia obovata</i> (Labill.) C. Gardner	SS	1 . . . 5	SW
<i>Gastrolobium bilobum</i> R.Br.	MS	. 2 . . .	SW
<i>Gastrolobium crassifolium</i> Benth.	SS	. 2 . . .	SW
<i>Gastrolobium hookeri</i> Meissner	DS	. 2 . . .	SW
<i>Gastrolobium pycnostachyum</i> Benth.	SS	1	ER
<i>Gastrolobium reticulatum</i> (Meissner) Benth.	SS	. 2 . 4 .	ER
<i>Gastrolobium spinosum</i> Benth. var. <i>spinosum</i>	MS	. 2 . . 5	SW
<i>Gastrolobium stenophyllum</i> Turcz.	DS	. . . 4 .	ER
<i>Glycine clandestina</i> Willd. var. <i>clandestina</i>	CL	. . 3 4 .	EA
<i>Gompholobium baxteri</i> Benth.	DS	. 2 . . .	ER
<i>Gompholobium knightianum</i> Lindley	DS	. 2 . . .	SW
<i>Gompholobium marginatum</i> R.Br.	DS	. . . 4 5	SW
<i>Gompholobium polymorphum</i> R.Br.	DS	1 2 . . 5	SW
<i>Gompholobium venustum</i> R.Br.	DS	1 2 . . .	SW
<i>Gompholobium viscidulum</i> Meissner	DS	. 2 3 . .	SW
<i>Goodia lotifolia</i> Salisb. var. <i>lotifolia</i>	DS	. . 3 . .	EA
<i>Hovea acanthoclada</i> (Turcz.) F. Muell.	MS	. . 3 . .	WA
<i>Hovea pungens</i> Benth.	DS	1 2 . . .	SW
<i>Hovea trisperma</i> Benth.	DS	. 2 3 4 .	SW
<i>Indigofera australis</i> Willd. var. <i>australis</i>	SS	. . 3 . .	EA
<i>Jacksonia capitata</i> Benth.	DS	. 2 3 . .	SW
<i>Jacksonia compressa</i> Turcz.	MS	1	PK
<i>Jacksonia furcellata</i> (Bonpl.) DC.	TS	. . . 4 5	SW
<i>Jacksonia grevilleoides</i> Turcz.	SS	. 2 . . .	ER
<i>Jacksonia racemosa</i> Meissner	DS	. 2 3 4 .	SW
<i>Jacksonia sericea</i> Benth.	SS	. 2 . . 5	SW
<i>Jacksonia spinosa</i> (Labill.) R.Br.	MS	. . . . 5	SW
<i>Kennedia coccinea</i> Vent.	CL	. 2 . . .	SW
<i>Kennedia eximia</i> Lindley	MP	. . 3 4 .	ER
<i>Kennedia nigricans</i> Lindley	CL	1 2 . 4 5	ER
<i>Kennedia prostrata</i> R.Br.	MP	. . 3 4 .	EA
<i>Latrobea hirtella</i> (Turcz.) Benth.	SS	. 2 . . .	SW
<i>Latrobea tenella</i> (Meissner) Benth. var. <i>grandiflora</i> Benth.	SS	. 2 . . .	SW
<i>Mirbelia ovata</i> Meissner	DS	. 2 . . .	ER
<i>Mirbelia trichocalyx</i> Domin	DS	. . 3 . .	SW
<i>Oxylobium carinatum</i> (Meissner) Benth.	DS	. 2 . . .	ER
<i>Oxylobium coriaceum</i> (Smith) C. Gardner	SS	. 2 . . .	ER
<i>Oxylobium microphyllum</i> Benth.	SS	. 2 . . .	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Oxylobium parviflorum</i> Benth. var. <i>parviflorum</i>	MS	. 234 .	SW
<i>Oxylobium racemosum</i> (Turcz.) C. Gardner	LS	. . 34 .	ER
<i>Oxylobium tetragonophyllum</i> E. Pritzel	SS	. . . 4 .	ER
<i>Pultenaea adunca</i> Turcz.	SS	. 2 . 4 .	ER
<i>Pultenaea calycina</i> (Turcz.) Benth.	SS	. 2 . . .	ER
<i>Pultenaea conferta</i> Benth.	MP	. . 3 . .	ER
<i>Pultenaea neurocalyx</i> Turcz. var. <i>major</i> Benth.	SS	. 2 . . .	ER
<i>Pultenaea neurocalyx</i> Turcz. var. <i>neurocalyx</i>	SS	. 2 . . .	ER
<i>Pultenaea obcordata</i> (R.Br.) Benth.	SS	. . . . 5	SW
<i>Pultenaea rotundifolia</i> (Turcz.) Benth.	DS	. . 3 . .	ER
<i>Pultenaea spinulosa</i> (Turcz.) Benth.	DS	. . 3 . .	ER
<i>Pultenaea verruculosa</i> Turcz. var. <i>brachyphylla</i> Benth.	DS	. 234 .	ER
<i>Pultenaea verruculosa</i> Turcz. var. <i>pilosa</i> Benth.	DS	. 234 .	ER
<i>Sphaerolobium daviesioides</i> Turcz.	DS	. 2 . 4 .	SW
<i>Sphaerolobium linophyllum</i> (Huegel) Benth.	DS	. 2 . . .	SW
<i>Sphaerolobium macranthum</i> Meissner	SS	. 2 . . 5	SW
<i>Sphaerolobium nudiflorum</i> (Meissner) Benth.	DS	1	SW
<i>Sphaerolobium racemosum</i> Benth.	SS	. 2 . . .	SW
<i>Sphaerolobium scabriusculum</i> Meissner	DS	. 2 . . .	SW
<i>Sphaerolobium vineum</i> Smith	DS	. 2 . . .	EA
<i>Templetonia neglecta</i> J.H. Ross	SS	. 2 . . .	ER
<i>Templetonia retusa</i> (Vent.) R.Br.	DS	. 234 5	EA
<i>Templetonia sulcata</i> (Meissner) Benth.	MS	. 23 . .	EA
<i>Viminaria juncea</i> (Schrader & Wendl.) Hoffsgg.	TS	. . . 4 .	EA
Geraniaceae			
* <i>Erodium cicutarium</i> (L.) L'Her.	AS	. . . 4 .	
<i>Erodium crinitum</i> Carolin	AS	. . . 4 .	EA
<i>Pelargonium australe</i> Willd.	HP	. . . 4 .	EA
* <i>Pelargonium capitatum</i> (L.) L'Her.	HP	. . . . 5	
<i>Pelargonium littorale</i> Huegel	AS	. . . . 5	EA
Oxalidaceae			
<i>Oxalis corniculata</i> L.	AS	. . . 4 .	EA
Linaceae			
<i>Linum marginale</i> Cum. ex Planchon	AS	. . . 4 .	EA
Zygophyllaceae			
<i>Nitaria billardiarei</i> DC.	MS	. . . . 5	EA
<i>Zygophyllum billardiarei</i> DC.	DS	. . . . 5	EA
<i>Zygophyllum glaucum</i> F. Muell.	DS	. . . 4 .	EA
Rutaceae			
<i>Boronia albiflora</i> R.Br. ex Benth.	DS	1 2 . . .	ER
<i>Boronia clavata</i> Paul G. Wilson	LS	. . . 4 .	SW
<i>Boronia coerulescens</i> F. Muell. subsp. <i>coerulescens</i>	DS	. 2 . . .	EA
<i>Boronia crassifolia</i> Bartling	DS	1 2 . 4 .	SW
<i>Boronia crenulata</i> Smith var. <i>crenulata</i>	DS	. . . . 5	SW
<i>Boronia crenulata</i> Smith var. <i>gracilis</i> (Benth.) Paul G. Wilson	DS	. 23 . 5	SW
<i>Boronia denticulata</i> Smith	SS	. . . 4 .	SW
<i>Boronia inconspicua</i> Benth.	DS	. 234 .	ER
<i>Boronia inornata</i> Turcz.	DS	. 234 .	EA
<i>Boronia octandra</i> Paul G. Wilson	DS	. . . 4 .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Boronia oxyantha</i> Turcz. var. <i>brevicalyx</i> (Benth.) Paul G. Wilson	DS	. . 3 . .	ER
<i>Boronia oxyantha</i> Turcz. var. <i>oxyantha</i>	DS	. . 3 . .	PK
<i>Boronia penicillata</i> Benth.	DS	. 2 . . .	SW
<i>Boronia ramosa</i> (Lindley) Benth.	DS	. . . . 5	SW
<i>Boronia scabra</i> Lindley	DS	. . . 4 .	SW
<i>Boronia spathulata</i> Lindley	DS	. 2 . . .	SW
<i>Boronia subsessilis</i> Benth.	DS	1 2 . . .	SW
<i>Boronia ternata</i> Endl. var. <i>foliosa</i> (S. Moore) Paul G. Wilson	SS	. . 3 . .	ER
<i>Boronia ternata</i> Endl. var. <i>glabrifolia</i> F. Muell.	SS	. . 3 . .	ER
<i>Boronia tetrandra</i> Labill.	SS	1 . . . 5	ER
<i>Diplolaena microcephala</i> Bartling var. <i>microcephala</i>	SS	. . . 4 .	SW
<i>Eriostemon cymbiformis</i> Paul G. Wilson	DS	. 2 . . .	PK
<i>Eriostemon gardneri</i> Paul G. Wilson	SS	. . 3 . .	SW
<i>Eriostemon nodiflorus</i> Lindley var. <i>lasio calyx</i> (Domin) Paul G. Wilson	DS	. 2 . . .	SW
<i>Microcybe albiflora</i> Turcz.	DS	. . 3 . .	WA
<i>Microcybe multiflora</i> Turcz. var. <i>multiflora</i>	SS	. . 3 . .	EA
<i>Microcybe pauciflora</i> Turcz.	DS	. 2 . . .	EA
<i>Nematolepis phebaloides</i> Turcz.	LS	. . 3 4 .	ER
<i>Phebalium filifolium</i> Turcz.	SS	. . 3 . .	WA
<i>Phebalium lepidotum</i> (Turcz.) Paul G. Wilson var. <i>lepidotum</i>	DS	. . 3 . .	SW
<i>Phebalium lepidotum</i> (Turcz.) Paul G. Wilson			
var. <i>obovatum</i> Paul G. Wilson	SS	. 2 . . .	ER
<i>Phebalium microphyllum</i> Turcz.	DS	. . 3 . .	SW
<i>Phebalium rude</i> Bartling subsp. <i>amblycarpum</i> (F. Muell.) Paul G. Wilson	SS	. . 3 . .	ER
<i>Phebalium rude</i> Bartling subsp. <i>rude</i>	SS	. . . . 5	SW
<i>Phebalium tuberculatum</i> (F. Muell.) Benth. susp. <i>tuberculatum</i>	SS	. . 3 . .	WA
<i>Rhadinotamnus euphemiae</i> (F. Muell.) Paul G. Wilson	DS	1	ER
Tremandraceae			
<i>Platytheca galioides</i> Steetz	SS	. 2 . . .	ER
<i>Platytheca juniperina</i> Domin	SS	1	ER
Polygalaceae			
<i>Comesperma calymega</i> Labill.	DS	. 2 . . .	EA
<i>Comesperma confertum</i> Labill.	SS	. . . . 5	SW
<i>Comesperma drummondii</i> Steetz	DS	. 2 3 . .	SW
<i>Comesperma flavum</i> DC.	SS	1	SW
<i>Comesperma lanceolatum</i> (R.Br.) Benth.	DS	. 2 . . .	ER
<i>Comesperma spinosum</i> F. Muell.	DS	1 . 3 4 .	WA
<i>Comesperma virgatum</i> Labill.	SS	. 2 . . .	SW
<i>Comesperma volubile</i> Labill.	CL	. 2 . . .	EA
Euphorbiaceae			
<i>Adriana quadripartita</i> (Labill.) Gaudich.	MS	. . . 4 5	EA
<i>Amperea conferta</i> Benth.	DS	1	ER
<i>Amperea ericoides</i> Adr. Juss.	DS	1	SW
<i>Beyeria brevifolia</i> (Muell. Arg.) Benth.	MS	. . 3 . .	WA
<i>Beyeria latifolia</i> (Muell. Arg.) Baillon	MS	1 . . . 5	SW
<i>Beyeria lechenaultii</i> (DC.) Baillon	MS	. . 3 4 .	EA
<i>Calycopeplus marginatus</i> Benth.	MS	1 2 3 . .	PK
<i>Euphorbia drummondii</i> Boiss.	AS	. . . 4 .	EA
* <i>Euphorbia paralias</i> L.	AS	. . . . 5	
<i>Monotaxis occidentalis</i> Endl.	DS	1 2 . . .	SW
<i>Phyllanthus calycinus</i> Labill.	DS	. . . 4 5	EA

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Phyllanthus scaber</i> Klotzsch	SS	. . 3 . .	ER
<i>Poranthera ericoides</i> Klotzsch	DS	. 2 . . .	EA
<i>Poranthera huegelii</i> Klotzsch	DS	1 . . 4 .	SW
<i>Poranthera microphylla</i> Brongn.	AS	1 . . 4 .	EA
<i>Pseudanthus virgatus</i> (Klotzsch) Muell. Arg.	DS	1 2 . . .	SW
<i>Ricinocarpos trichophorus</i> Muell. Arg.	TS	. 2 3 . .	SW
<i>Stachystemon polyandrus</i> (F. Muell.) Benth.	DS	1 2 . . .	ER
Stackhousiaceae			
<i>Stackhousia monogyna</i> Labill.	DS	. 2 3 4 5	EA
<i>Stackhousia muricata</i> Lindley	DS	. 2 . . .	EA
<i>Stackhousia scoparia</i> Benth.	DS	. 2 . . .	WA
<i>Tripterococcus brunonis</i> Endl.	DS	. 2 . . 5	SW
Sapindaceae			
<i>Dodonaea amblyophylla</i> Diels	LS	. . 3 4 .	WA
<i>Dodonaea bursariifolia</i> F. Muell.	DS	. . 3 . .	EA
<i>Dodonaea ceratocarpa</i> Endl.	SS	. 2 3 . 5	SW
<i>Dodonaea concinna</i> Benth.	SS	. . 3 . .	ER
<i>Dodonaea pinifolia</i> Miq.	DS	. . 3 4 .	SW
<i>Dodonaea plarmicaefolia</i> Turcz.	TS	. . 3 4 .	ER
<i>Dodonaea trifida</i> F. Muell.	SS	. 2 3 . .	ER
<i>Dodonaea viscosa</i> Jacq. subsp. <i>spatulata</i> (Smith) J.G. West	MS	. . . 4 .	EA
Rhamnaceae			
<i>Cryptandra glabriflora</i> Benth.	DS	. 2 . 4 .	SW
<i>Cryptandra pungens</i> Steudel	SS	. 2 . . 5	WA
<i>Cryptandra nutans</i> Steudel	DS	. . 3 . .	SW
<i>Pomaderris myrtilloides</i> Fenzl	MS	1	ER
<i>Pomaderris oraria</i> F. Muell. ex Reissek	DS	. . 3 . .	ER
<i>Siegfriedia darwinioides</i> C. Gardner	SS	1	ER
<i>Spyridium cordatum</i> (Turcz.) Benth.	DS	. 2 . . .	ER
<i>Spyridium denticuliferum</i> Diels	SS	. 2 3 . .	SW
<i>Spyridium globulosum</i> (Labill.) Benth.	LS	. . . . 5	SW
<i>Spyridium oligocephalum</i> (Turcz.) Benth.	SS	. 2 3 4 .	SW
Malvaceae			
<i>Alyogyne hakeifolia</i> (Giord.) Alef.	HP	. . 3 4 .	EA
<i>Alyogyne huegelii</i> (Endl.) Fryx.	LS	. . 3 4 .	EA
<i>Lawrencia diffusa</i> (Benth.) Melville	MP	. 2 . . .	WA
<i>Lawrencia glomerata</i> Hook.	DS	. . . 4 .	EA
<i>Lawrencia spicata</i> Hook.	AS	. . 3 . .	EA
<i>Sida calyxhymenia</i> Gay ex DC.	AS	. . . 4 .	EA
Sterculiaceae			
<i>Commersonia crispa</i> Turcz.	DS	. . 3 . .	SW
<i>Guichenotia ledifolia</i> Gay	SS	. . . . 5	SW
<i>Lasiopetalum compactum</i> S. Paust	DS	. . 3 . .	ER
<i>Lasiopetalum discolor</i> Hook.	SS	. . . . 5	EA
<i>Lasiopetalum indutum</i> Steudel	SS	. 2 3 4 5	ER
<i>Lasiopetalum monticolum</i> S. Paust	DS	1	ER
<i>Lasiopetalum parvuliflorum</i> F. Muell.	SS	. . 3 4 .	ER
<i>Lasiopetalum quinquenervium</i> Turcz.	SS	1 . . 4 .	ER
<i>Lasiopetalum rosmarinifolium</i> (Turcz.) Benth. var. <i>latifolium</i> Benth.	SS	. . 3 . .	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Lasiopetalum rosmarinifolium</i> (Turcz.) Benth. var. <i>rosmarinifolium</i>	SS	. 2 3 4 .	ER
<i>Lysiosepalum involucreatum</i> (Turcz.) C. Gardner	SS	. . 3 4 5	SW
<i>Rulingia grandiflora</i> Endl.	SS	1	SW
<i>Rulingia parviflora</i> Endl.	DS	. . 3 . .	SW
<i>Rulingia platycalyx</i> Benth.	DS	. . 3 . .	ER
<i>Thomasia angustifolia</i> Steudel	DS	. . 3 4 .	SW
<i>Thomasia foliosa</i> Gay	DS	. . 3 4 .	SW
<i>Thomasia microphylla</i> S. Paust	DS	. . 3 . .	ER
<i>Thomasia petalocalyx</i> F. Muell.	SS	. . . 4 .	EA
<i>Thomasia pygmaea</i> (Turcz.) Benth.	DS	1 2 . . .	ER
<i>Thomasia sarotes</i> Turcz.	DS	. . 3 4 .	SW
<i>Thomasia stelligera</i> (Turcz.) Benth.	DS	. . . 4 .	ER
Dilleniaceae			
<i>Hibbertia acerosa</i> (R.Br. ex DC.) Benth.	MP	. 2 . . .	SW
<i>Hibbertia cuneiformis</i> (Labill.) Smith	LS	. . . . 5	SW
<i>Hibbertia desmophylla</i> (Benth.) F. Muell.	DS	1	SW
<i>Hibbertia gracilipes</i> Benth.	DS	1	SW
<i>Hibbertia lineata</i> Steudel	SS	. 2 . . .	SW
<i>Hibbertia mucronata</i> (Turcz.) Benth.	SS	1 2 3 . .	SW
<i>Hibbertia pungens</i> Benth.	SS	. 2 . . .	SW
<i>Hibbertia racemosa</i> (Endl.) Gilg	DS	. 2 . . .	SW
<i>Hibbertia recurvifolia</i> (Steudel) Benth.	DS	. 2 . . .	SW
<i>Hibbertia rupicola</i> (S. Moore) C. Gardner	DS	1 . . 4 .	SW
<i>Hibbertia verrucosa</i> (Turcz.) Benth.	DS	1 2 . . .	SW
Clusiaceae			
<i>Hypericum gramineum</i> G. Forster	AS	. . . 4 .	EA
Frankeniaceae			
<i>Frankenia tetrapetala</i> Labill.	MP	. . . 4 5	SW
Violaceae			
<i>Hybanthus epacroides</i> (C. Gardner) Melch.	DS	. . . 4 .	WA
<i>Hybanthus floribundus</i> (Lindley) F. Muell. subsp. <i>floribundus</i>	SS	. . 3 . .	EA
Thymelaeaceae			
<i>Pimelea angustifolia</i> R.Br.	DS	. 2 3 4 .	SW
<i>Pimelea argentea</i> R.Br.	SS	. . . 4 .	SW
<i>Pimelea brachyphylla</i> Benth.	DS	. 2 . . .	SW
<i>Pimelea brevifolia</i> R.Br.	DS	. 2 . 4 5	SW
<i>Pimelea ferruginea</i> Labill.	DS	. . . . 5	SW
<i>Pimelea imbricata</i> R.Br. var. <i>pulliger</i> Benth.	DS	. 2 3 . .	SW
<i>Pimelea lehmanniana</i> Meissner	DS	1 2 . . .	SW
<i>Pimelea longiflora</i> R.Br.	DS	1 2 . . .	SW
<i>Pimelea physodes</i> Hook.	SS	1 2 . . .	ER
<i>Pimelea spectabilis</i> Lindley	DS	1	SW
<i>Pimelea suaveolens</i> Meissner	SS	1 2 3 . .	SW
<i>Pimelea sulphurea</i> Meissner	DS	. 2 . . .	SW
<i>Pimelea sylvestris</i> R.Br.	SS	. . . 4 5	SW
Myrtaceae			
<i>Actinodium cunninghamii</i> Schauert	DS	. 2 . 4 .	SW
<i>Agonis flexuosa</i> (Sprengel) Schauert	ST	. . . . 5	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Agonis linearifolia</i> (DC.) Schauer	TS	1 2 . .	SW
<i>Agonis obtusissima</i> F. Muell.	MS	1 2 . . 5	ER
<i>Agonis spathulata</i> Schauer	SS	1 2 3 . 5	ER
<i>Agonis undulata</i> Benth.	LS	1	PK
<i>Astartea ambigua</i> F. Muell.	MS	. 2 3 4 5	SW
<i>Astartea fascicularis</i> (Labill.) DC.	SS	. 2 3 4 5	SW
<i>Baeckea corynophylla</i> F. Muell.	SS	1 . 3 4 .	SW
<i>Baeckea crispiflora</i> F. Muell.	SS	. . 3 . .	WA
<i>Baeckea leptophylla</i> (Turcz.) Domin	DS	. 2 . . .	SW
<i>Baeckea ovalifolia</i> (F. Muell.) F. Muell.	DS	1	PK
<i>Baeckea preissiana</i> (Schauer) Domin	DS	. 2 3 . .	WA
<i>Baeckea tetragona</i> F. Muell. ex Benth.	DS	. . 3 . .	SW
<i>Beaufortia anisandra</i> Schauer	SS	1	ER
<i>Beaufortia empetrifolia</i> (H.G. Reichb.) Schauer	SS	. 2 . . .	SW
<i>Beaufortia micrantha</i> Schauer var. <i>micrantha</i>	DS	1 2 . 4 .	WA
<i>Beaufortia orbifolia</i> F. Muell.	LS	1	SW
<i>Beaufortia schaueri</i> Preiss ex Schauer	SS	1 2 3 . .	ER
<i>Callistemon phoeniceus</i> Lindley	TS	. . 3 4 .	WA
<i>Calothamnus gibbosus</i> Benth.	SS	. 2 3 . .	ER
<i>Calothamnus gracilis</i> R.Br.	SS	. 2 3 . 5	SW
<i>Calothamnus macrocarpus</i> T.J. Hawkeswood	MS	1	PK
<i>Calothamnus pinifolius</i> F. Muell.	SS	1 2 . . 5	ER
<i>Calothamnus quadrifidus</i> R.Br.	LS	1 2 3 4 5	WA
<i>Calothamnus sanguineus</i> Labill.	SS	. 2 . . .	SW
<i>Calothamnus validus</i> S. Moore	MS	1	PK
<i>Calothamnus villosus</i> R.Br.	MS	. 2 . 4 5	SW
<i>Calytrix asperula</i> (Schauer) Benth.	DS	. 2 . . .	ER
<i>Calytrix breviseta</i> Lindley	DS	. 2 . . .	SW
<i>Calytrix decandra</i> DC.	DS	. 2 . . .	ER
<i>Calytrix leschenaultii</i> (Schauer) Benth.	DS	1 2 3 . .	SW
<i>Calytrix simplex</i> Lindley	DS	1	ER
<i>Chamelaucium brevifolium</i> Benth.	SS	. 2 . . .	WA
<i>Chamelaucium ciliatum</i> Desf.	SS	1 2 . . 5	SW
<i>Chamelaucium megalopetalum</i> F. Muell. ex Benth.	SS	. 2 . . .	SW
<i>Conothamnus aureus</i> (Turcz.) Domin	DS	1 2 . . .	ER
<i>Darwinia diosmoides</i> (DC.) Benth.	SS	. 2 3 4 5	WA
<i>Darwinia vestita</i> (Endl.) Benth.	DS	1 2 3 . 5	SW
<i>Eremaea pauciflora</i> (Endl.) Druce	LS	. 2 . . .	WA
<i>Eucalyptus acies</i> Brooker	MA	1	ER
<i>Eucalyptus albidia</i> Maiden & Blakely	MA	. 2 . . .	SW
<i>Eucalyptus anceps</i> (R.Br. ex Maiden) Blakely	MA	. . 3 . 5	EA
<i>Eucalyptus angulosa</i> Schauer	MA	. . 3 . 5	EA
<i>Eucalyptus annulata</i> Benth.	MA,ST	. . 3 4 .	ER
<i>Eucalyptus astringens</i> (Maiden) Maiden	ST	. . 3 . .	SW
<i>Eucalyptus buprestium</i> F. Muell.	MA	. 2 . . .	ER
<i>Eucalyptus burdettiana</i> Blakely & H. Steedman	ST	1	ER
<i>Eucalyptus calycogona</i> Turcz.	MA	. . 3 . .	EA
<i>Eucalyptus celastroides</i> Turcz. var. <i>virella</i> Brooker	MA	. . 3 4 .	SW
<i>Eucalyptus conferruminata</i> D.J. Carr & S.G.M. Carr	ST	1 . . 4 .	ER
<i>Eucalyptus conglobata</i> (R.Br. ex Benth.) Maiden	MA	1 . 3 4 .	EA
<i>Eucalyptus cornuta</i> Labill.	MT	. . . 4 5	SW
<i>Eucalyptus coronata</i> C. Gardner	MA	1	PK
<i>Eucalyptus decipiens</i> Endl.	MA	. 2 . 4 5	SW
<i>Eucalyptus decurva</i> F. Muell.	MA	1	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Eucalyptus eremophila</i> (Diels) Maiden	MA	. . 34.	WA
<i>Eucalyptus falcata</i> Turcz.	MA	12345	SW
<i>Eucalyptus flocktoniae</i> (Maiden) Maiden	MA	. . . 4.	EA
<i>Eucalyptus foecunda</i> Schauer	MA	. . 34.	EA
<i>Eucalyptus gardneri</i> Maiden	MA,ST	1234.	SW
<i>Eucalyptus gracilis</i> F. Muell.	ST	. . . 4.	EA
<i>Eucalyptus incrassata</i> Labill.	MA	. 234.	EA
<i>Eucalyptus lehmannii</i> (Schauer) Benth.	MA,ST	1. 3. .	ER
<i>Eucalyptus leptocalyx</i> Blakely	MA	1234.	ER
<i>Eucalyptus macrandra</i> F. Muell. ex Benth.	MA	. . . 4.	ER
<i>Eucalyptus megacornuta</i> C. Gardner	MA	. . 3. .	ER
<i>Eucalyptus micranthera</i> F. Muell. ex Benth.	MA	. 2. . .	ER
<i>Eucalyptus newbeyi</i> D.J. Carr & S.G.M. Carr	ST	. . 3. .	ER
<i>Eucalyptus nutans</i> F. Muell.	DT	1234.	ER
<i>Eucalyptus occidentalis</i> Endl.	MT	. . 345	ER
<i>Eucalyptus oleosa</i> F. Muell. ex Miq. var. <i>oleosa</i>	MT,MA	. . 34.	EA
<i>Eucalyptus pachyloma</i> Benth.	MA	. 2. . .	SW
<i>Eucalyptus pileata</i> Blakely	MA	. 2. . .	WA
<i>Eucalyptus platypus</i> Hook. var. <i>heterophylla</i> Blakely	DT	. . . . 5	ER
<i>Eucalyptus platypus</i> Hook. var. <i>platypus</i>	DT	. 234.	ER
<i>Eucalyptus preissiana</i> Schauer	MA	12. . .	ER
<i>Eucalyptus redunca</i> Schauer	MA	123. .	SW
<i>Eucalyptus rudis</i> Endl.	MT	. . . 4.	SW
<i>Eucalyptus sepulchralis</i> F. Muell.	MA	1. . . .	PK
<i>Eucalyptus spathulata</i> Hook. subsp. <i>grandiflora</i> (Benth.) L. Johnson & Blaxell	MA	. . 3. .	ER
<i>Eucalyptus tetragona</i> (R.Br.) F. Muell.	MA	123. 5	SW
<i>Eucalyptus tetraptera</i> Turcz.	MA	123. .	ER
<i>Eucalyptus transcontinentalis</i> Maiden	MA	. 2. . .	WA
<i>Eucalyptus uncinata</i> Turcz.	MA	. 2345	WA
<i>Eucalyptus xanthoneura</i> Turcz.	MA	. . 3. .	ER
<i>Hypocalymna strictum</i> Schauer var. <i>pendunculatum</i> Benth.	SS	12. . .	SW
<i>Kunzea affinis</i> S. Moore	LS	. 23. .	ER
<i>Kunzea ericifolia</i> (Smith) Heynh.	LS	1. . . .	SW
<i>Kunzea eriocalyx</i> F. Muell.	SS	. 23. .	ER
<i>Kunzea jucunda</i> Diels	LS	12. . .	SW
<i>Kunzea micrantha</i> Schauer	DS	. 23. .	SW
<i>Kunzea micromera</i> Schauer	MS	. . 3. .	SW
<i>Kunzea preissiana</i> Schauer	MS	. 23. .	SW
<i>Kunzea recurva</i> Schauer	LS	. 2. 4.	SW
<i>Leptospermum erubescens</i> Schauer	TS	. 234.	WA
<i>Leptospermum oligandrum</i> Turcz.	MS	123. 5	ER
<i>Leptospermum spinescens</i> Endl.	SS	123. 5	SW
<i>Lhotskya ericoides</i> Schauer	SS	. . . . 5	SW
<i>Melaleuca acuminata</i> F. Muell.	TS	. . 345	EA
<i>Melaleuca adnata</i> Turcz.	MS	. 2. . .	EA
<i>Melaleuca apodocephala</i> Turcz.	DS	. . . 4.	ER
<i>Melaleuca bracteosa</i> Turcz.	SS	. 23. .	ER
<i>Melaleuca brevifolia</i> Turcz.	MS	. . 34.	WA
<i>Melaleuca calycina</i> R.Br.	SS	. 234.	ER
<i>Melaleuca cardiophylla</i> F. Muell.	SS	. 2. . .	ER
<i>Melaleuca citrina</i> Turcz.	LS	12. . .	PK
<i>Melaleuca coccinea</i> A.S. George	TS	1. . . .	WA
<i>Melaleuca cucullata</i> Turcz.	TS	. . 34.	ER

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Melaleuca cuneata</i> Turcz.	SS	. 2 . . .	SW
<i>Melaleuca cuticularis</i> Labill.	DT	. . . 4 5	SW
<i>Melaleuca densa</i> R.Br.	MS	. 2 . . .	SW
<i>Melaleuca depauperata</i> Turcz.	MS	. 2 . . .	SW
<i>Melaleuca elliptica</i> Labill.	TS	. . 3 . .	SW
<i>Melaleuca glaberrima</i> F. Muell.	DS	. . . 4 .	SW
<i>Melaleuca hamulosa</i> Turcz.	TS	. . . 4 .	WA
<i>Melaleuca lanceolata</i> Otto	TS	. . . . 5	EA
<i>Melaleuca lateralis</i> Turcz.	SS	. 2 . . .	SW
<i>Melaleuca lateriflora</i> Benth.	MS	. . 3 4 .	WA
<i>Melaleuca laxiflora</i> Turcz.	DT	. . 3 4 .	SW
<i>Melaleuca nesophila</i> F. Muell.	TS	. . . . 5	ER
<i>Melaleuca pauperiflora</i> F. Muell.	TS	. . 3 4 .	EA
<i>Melaleuca pentagona</i> Labill. var. <i>pentagona</i>	DS	. 2 3 4 5	SW
<i>Melaleuca polygaloides</i> Schauer	TS	. . . . 5	SW
<i>Melaleuca pulchella</i> R.Br.	SS	. . . 4 .	ER
<i>Melaleuca pungens</i> Schauer	SS	. 2 . . .	SW
<i>Melaleuca scabra</i> R.Br.	DS	1 2 3 . 5	SW
<i>Melaleuca sclerophylla</i> Diels	DS	1 2 3 4 .	SW
<i>Melaleuca sparsiflora</i> Turcz.	SS	. 2 . . .	WA
<i>Melaleuca spathulata</i> Schauer	SS	. 2 3 4 5	ER
<i>Melaleuca striata</i> Labill.	MS	1 2 . . .	ER
<i>Melaleuca suberosa</i> (Schauer) C. Gardner	DS	. 2 3 4 5	ER
<i>Melaleuca subfalcata</i> Turcz.	MS	. 2 3 4 5	ER
<i>Melaleuca thymoides</i> Labill.	MS	. 2 . . 5	ER
<i>Melaleuca thyooides</i> Turcz.	TS	. 2 . . 5	SW
<i>Melaleuca uncinata</i> R.Br.	LS	. 2 3 4 .	EA
<i>Melaleuca undulata</i> Benth.	LS	. 2 3 . .	SW
<i>Melaleuca violacea</i> Schauer	DS	. 2 3 . .	ER
<i>Micromyrtus elobata</i> (F. Muell.) Benth.	SS	. 2 . . .	ER
<i>Pericalymna ellipticum</i> (Endl.) Schauer	SS	. . . 4 .	SW
<i>Phymatocarpus maxwellii</i> F. Muell.	MS	. 2 3 4 5	ER
<i>Regelia velutina</i> (Turcz.) C. Gardner	TS	1	PK
<i>Rinzia oxycoccoides</i> Turcz.	MP	1	PK
<i>Rinzia fumana</i> Schauer	DS	. 2 3 . .	SW
<i>Thryptomene australis</i> Endl.	TS	. . 3 . .	WA
<i>Verticordia acerosa</i> Lindley	SS	. 2 . . .	SW
<i>Verticordia brachypoda</i> Turcz.	SS	. 2 . . .	SW
<i>Verticordia densiflora</i> Lindley	SS	. 2 3 4 .	SW
<i>Verticordia endlicheriana</i> Schauer	DS	. 2 3 . .	SW
<i>Verticordia fastigiata</i> Turcz.	DS	. . 3 . .	ER
<i>Verticordia grandiflora</i> Endl.	DS	. 2 . . .	SW
<i>Verticordia habrantha</i> Schauer	DS	. 2 3 4 5	SW
<i>Verticordia harveyi</i> Benth.	SS	. 2 . 4 .	ER
<i>Verticordia helichrysantha</i> F. Muell. ex Benth.	DS	1 2 . . .	ER
<i>Verticordia humilis</i> Benth.	DS	. 2 3 . .	ER
<i>Verticordia insignis</i> Endl.	DS	. . 3 . .	SW
<i>Verticordia oxylepis</i> Turcz.	DS	1 2 3 . .	ER
<i>Verticordia pholidophylla</i> F. Muell.	DS	1	SW
<i>Verticordia plumosa</i> (Desf.) Druce	SS	. 2 3 4 .	SW
Haloragaceae			
<i>Glischrocaryon aureum</i> (Lindley) Orch. var. <i>angustifolium</i> (Nees) Orch.	DS	. 2 3 4 .	EA
<i>Gonocarpus nodulosus</i> Nees	AS	. . . 4 .	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Gonocarpus paniculatus</i> (R.Br. ex Benth.) Orch.	AS	. . . 4 .	SW
<i>Gonocarpus trichostachyus</i> (Benth.) Orch.	DS	. 2 . . .	SW
Apiaceae			
<i>Apium annuum</i> P.S. Short	AS	. . . 4 .	EA
<i>Apium prostratum</i> Labill. ex Vent. var. <i>filiforme</i> (A. Rich.) Kirk	AS	. . . 4 5	EA
<i>Apium prostratum</i> Labill. ex Vent. var. <i>prostratum</i>	AS	. . . 4 5	EA
<i>Daucus glochidiatus</i> (Labill.) Fischer, C. Meyer & Ave-Lall.	AS	. . . 4 .	EA
<i>Hydrocotyle callicarpa</i> Bunge	AS	. . . 4 .	EA
<i>Hydrocotyle medicaginoidea</i> Turcz.	AS	. 2 . 4 5	EA
<i>Hydrocotyle pilifera</i> Turcz. var. <i>pilifera</i>	AS	. . . 4 .	EA
<i>Hydrocotyle rugulosa</i> Turcz.	AS	. . . 4 .	EA
<i>Platysace compressa</i> (Labill.) Norman	DS	. 2 . . 5	SW
<i>Platysace deflexa</i> (Turcz.) Norman	DS	. 2 3 4 .	SW
<i>Platysace effusa</i> (Turcz.) Norman	DS	. 2 . . .	ER
<i>Trachymene cyanopetala</i> (F. Muell.) Benth.	AS	. . . 4 .	EA
<i>Trachymene ornata</i> (Endl.) Druce var. <i>ornata</i>	AS	. . . 4 .	EA
<i>Trachymene pilosa</i> Smith	AS	. . . 4 5	EA
<i>Xanthosia hederifolia</i> Benth.	DS	1	ER
<i>Xanthosia huegelii</i> (Benth.) Steudel	DS	. 2 . . .	SW
<i>Xanthosia peduncularis</i> Benth.	DS	. 2 . . .	ER
Epacridaceae			
<i>Acrotriche cordata</i> (Labill.) R.Br.	DS	1 2 3 4 5	EA
<i>Acrotriche plurilocularis</i> B.R. Jackes	SS	. . 3 . .	SW
<i>Acrotriche ramiflora</i> R.Br.	DS	1 2 3 4 5	ER
<i>Andersonia caerulea</i> R.Br.	DS	1 2 3 4 5	SW
<i>Andersonia echinocephala</i> (Sishegl.) Druce	SS	1	ER
<i>Andersonia micrantha</i> R.Br.	DS	. 2 3 . .	ER
<i>Andersonia parvifolia</i> R.Br.	DS	1 2 3 4 .	ER
<i>Andersonia sprengelioides</i> R.Br.	DS	. . . . 5	SW
<i>Astroloma baxteri</i> DC.	DS	1 2 . . .	SW
<i>Astroloma compactum</i> R.Br.	MP	. . 3 4 5	SW
<i>Astroloma drummondii</i> Sonder	DS	1 2 . . 5	SW
<i>Astroloma epacridis</i> (DC.) Druce	DS	. 2 3 4 .	SW
<i>Astroloma microphyllum</i> Sishegl.	DS	. . 3 . .	SW
<i>Astroloma serratifolium</i> (DC.) Druce	DS	. 2 . . .	SW
<i>Astroloma tectum</i> R.Br.	DS	. 2 3 . .	ER
<i>Brachyloma concolor</i> (F. Muell.) C. Gardner	SS	. 2 3 . .	SW
<i>Coleanthera myrtoidea</i> Sishegl.	SS	. 2 3 . .	SW
<i>Conostephium drummondii</i> (Sishegl.) C. Gardner	SS	. . 3 . .	SW
<i>Leucopogon assiniis</i> R.Br.	SS	1	SW
<i>Leucopogon bossiaea</i> F. Muell.	DS	. 2 . . .	ER
<i>Leucopogon concinnus</i> Benth.	DS	. 2 . . .	SW
<i>Leucopogon conostephioides</i> DC.	DS	. 2 . . .	SW
<i>Leucopogon corynocarpus</i> Sonder	SS	. 2 . . .	ER
<i>Leucopogon crassifolius</i> Sonder	SS	. 2 . . .	SW
<i>Leucopogon cuneifolius</i> Sishegl.	SS	. 2 . . .	SW
<i>Leucopogon cymbiformis</i> Cunn. ex DC.	DS	. 2 . . .	SW
<i>Leucopogon durus</i> Benth.	SS	. . 3 . .	ER
<i>Leucopogon elatior</i> Sonder	SS	. 2 . . .	ER
<i>Leucopogon funbriatus</i> Sishegl.	DS	. 2 3 . .	SW
<i>Leucopogon flavescens</i> Sonder var. <i>brevifolius</i> Benth.	SS	1 2 . . .	ER
<i>Leucopogon gibbosus</i> Sishegl.	DS	. 2 3 4 5	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Leucopogon insularis</i> Cunn. ex DC.	DS	. . 3 . .	SW
<i>Leucopogon minutifolius</i> W. Fitzg.	DS	. 2 . . 5	ER
<i>Leucopogon multiflorus</i> R.Br. var. <i>uliginus</i> Benth.	DS	1	PK
<i>Leucopogon obovatus</i> (Labill.) R.Br.	LS	1 . . 4 5	ER
<i>Leucopogon obtusatus</i> Sonder	DS	. . 3 . .	SW
<i>Leucopogon opponens</i> F. Muell.	MS	. 2 . . .	ER
<i>Leucopogon oxycedrus</i> Sonder	DS	. 2 . . .	SW
<i>Leucopogon parviflorus</i> (Andrews) Lindley	DS	. . . . 5	EA
<i>Leucopogon polymorphus</i> Sonder	DS	. 2 3 . .	SW
<i>Leucopogon propinquus</i> R.Br.	SS	. . . 4 5	SW
<i>Leucopogon rubicundus</i> F. Muell. ex Benth.	SS	. . 3 . .	WA
<i>Leucopogon tamminensis</i> E. Pritzel var. <i>australis</i> E. Pritzel	DS	. 2 . . .	SW
<i>Leucopogon tamminensis</i> E. Pritzel var. <i>tamminensis</i>	DS	. 2 . . .	SW
<i>Leucopogon tetragonus</i> Sonder	SS	. 2 . . .	ER
<i>Leucopogon unilateralis</i> Stschegl.	SS	1	ER
<i>Leucopogon woodsii</i> F. Muell.	DS	1	EA
<i>Lysinema ciliatum</i> R.Br.	SS	. 2 . 4 5	SW
<i>Monotoca tamariscina</i> F. Muell.	DS	1 2 . . .	SW
<i>Needhamiella pumilio</i> (R.Br.) L. Watson	DS	. 2 . . .	SW
<i>Oligarrhena micrantha</i> R.Br.	DS	. 2 . . .	SW
<i>Sphenotoma capitatum</i> (R.Br.) Lindley	DS	1	ER
<i>Sphenotoma dracophylloides</i> Sonder	SS	1	ER
<i>Sphenotoma squarrosus</i> (R.Br.) Don	SS	1	SW
<i>Styphelia intertexta</i> A.S. George	SS	. 2 3 4 .	WA
<i>Styphelia melaleucoides</i> F. Muell. var. <i>ovata</i> F. Muell.	SS	. . 3 . .	ER
<i>Styphelia pulchella</i> (Stschegl.) Druce	SS	. 2 . . .	SW
<i>Styphelia tenuiflora</i> Lindley	SS	. 2 . . .	SW
Primulaceae			
* <i>Anagallis arvensis</i> L.	AS	. . 3 4 .	
<i>Samolus junceus</i> R.Br.	DS	. . . 4 5	SW
<i>Samolus repens</i> (Forster & G. Forster) Pers.	DS	. . . 4 5	EA
Loganiaceae			
<i>Logania buxifolia</i> F. Muell.	SS	. . 3 . .	ER
<i>Logania callosa</i> F. Muell.	DS	1	ER
<i>Logania campanulata</i> R.Br.	DS	. 2 . . .	SW
<i>Logania fasciculata</i> R.Br.	SS	. . . . 5	ER
<i>Logania micrantha</i> Benth.	DS	. 2 . . .	SW
<i>Logania serpyllifolia</i> R.Br.	DS	1 2 . . .	SW
<i>Logania vaginalis</i> (Labill.) F. Muell.	LS	. . . . 5	EA
<i>Mitrasacme paradoxa</i> R.Br.	AS	. . . 4 .	EA
Gentianaceae			
<i>Sebaea ovata</i> (Labill.) R.Br.	AS	. . . 4 .	EA
Menyanthaceae			
<i>Villarsia parnassifolia</i> (Labill.) R.Br.	RP	. . . 4 .	SW
Apocynaceae			
<i>Alyxia buxifolia</i> R.Br.	LS	. . 3 . 5	EA
Convolvulaceae			
<i>Convolvulus erubescens</i> Sims	CL	. 2 . . .	EA

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Dichondra repens</i> Forster & G. Forster	MP	. . . 4.	EA
<i>Wilsonia backhousei</i> J.D. Hook.	MP	. . . 4.	EA
<i>Wilsonia humilis</i> R.Br.	MP	. . 3 4.	EA
<i>Wilsonia rotundifolia</i> Hook.	MP	. . . 4.	EA
Boraginaceae			
<i>Halgania andromedifolia</i> Behr & F. Muell.	SS	. . 3 . .	EA
<i>Halgania preissiana</i> Lehm.	DS	. 2 3 . .	WA
<i>Heliotropium undulatum</i> M. Vahl	DS	. . . 4.	EA
Chloanthaceae			
<i>Pityrodia exserta</i> (Benth.) Munir var. <i>exserta</i>	DS	1	PK
Lamiaceae			
<i>Microcorys barbata</i> R.Br.	SS	. 2 . . .	SW
<i>Microcorys glabra</i> (Bartling) Benth.	SS	. 2 3 . .	ER
<i>Microcorys longiflora</i> F. Muell.	SS	. 2 . . .	PK
<i>Microcorys subcanescens</i> Benth.	DS	1 . 3 . .	ER
<i>Prostanthera canaliculata</i> F. Muell.	SS	. 2 . . .	SW
<i>Prostanthera serpyllifolia</i> (R.Br.) Briq. subsp. <i>microphylla</i> (Cunn. ex Benth.) B.J. Cunn.	DS	. . 3 . .	EA
<i>Teucrium sessiliflorum</i> Benth.	AS	. . . 4.	EA
<i>Westringia cephalantha</i> F. Muell.	SS	. . 3 . .	WA
<i>Westringia dampieri</i> R.Br.	MS	. 2 3 . 5	EA
Solanaceae			
<i>Anthocercis fasciculata</i> F. Muell.	MS	1 . . 4 5	PK
<i>Anthocercis genistoides</i> Miers	MS	. . 3 4.	SW
<i>Anthocercis littorea</i> Labill.	TS	. . . . 5	SW
* <i>Lycium ferocissimum</i> Miers	TS	. . . . 5	
<i>Nicotiana rotundifolia</i> Lindley	RP	. . 3 . .	WA
<i>Solanum capsiciforme</i> (Domin) Baylis	HP	. . . 4.	EA
* <i>Solanum nigrum</i> L.	HP	. . . 4.	
Scrophulariaceae			
<i>Glossostigma drummondii</i> Benth.	AS	. . . 4.	EA
* <i>Parentucellia latifolia</i> (L.) Caruel	AS	. . . 4.	
Orobanchaceae			
* <i>Orobanche minor</i> Smith	AB	. . . . 5	
Lentibulariaceae			
<i>Polypompholyx tenella</i> (R.Br.) Lehm.	AB	. . . 4.	EA
<i>Utricularia violacea</i> R.Br.	AB	. . . 4.	EA
Myoporaceae			
<i>Eremophila decipiens</i> Ostenf.	LS	. . 3 4.	EA
<i>Eremophila densifolia</i> F. Muell.	SS	1 2 . . .	SW
<i>Eremophila denticulata</i> F. Muell.	SS	. . . 4.	PK
<i>Eremophila glabra</i> (R.Br.) Ostenf. var. <i>glabra</i>	SS	. . 3 4.	EA
<i>Eremophila glabra</i> (R.Br.) Ostenf. var. <i>viridiflora</i> F. Muell.	SS	. . 3 . .	ER
<i>Eremophila phillipsii</i> F. Muell.	MS	. . 3 . .	SW
<i>Myoporum beckeri</i> F. Muell. ex Benth.	LS	. . 3 4.	SW
<i>Myoporum oppositifolium</i> R.Br.	LS	. . . . 5	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Myoporum salsoloides</i> Turcz.	SS	. . . 4.	SW
<i>Myoporum tetrandrum</i> (Labill.) Domin	TS	. . . 4 5	SW
Plantaginaceae			
<i>Plantago hispidula</i> R.Br.	AS	. . . 4.	EA
Rubiaceae			
<i>Opercularia apiciflora</i> Labill.	DS	1	SW
<i>Opercularia hispidula</i> Endl.	DS	1 . . . 5	SW
<i>Opercularia liberiflora</i> F. Muell.	MP	. 2 3 . .	SW
<i>Opercularia spermacoea</i> Labill.	DS	. . . . 5	SW
<i>Opercularia vaginata</i> Labill.	DS	. 2 3 4 5	WA
Campanulaceae			
<i>Wahlenbergia gracilentia</i> Loth.	AS	. . . 4.	EA
Lobeliaceae			
<i>Isotoma hypocrateriformis</i> (R.Br.) Druce	AS	. 2 . . .	SW
<i>Lobelia alata</i> Labill.	DS	. . . 4 5	EA
<i>Lobelia gibbosa</i> Labill.	AS	. . 3 4 5	EA
<i>Lobelia rarifolia</i> F. Wimmer	AS	1 2 . . .	SW
<i>Lobelia rhombifolia</i> Vriese	AS	. . . 4.	EA
<i>Lobelia tenuior</i> R.Br.	AS	. . . . 5	SW
Goodeniaceae			
<i>Anthotium humile</i> R.Br.	RP	. 2 . . .	SW
<i>Anthotium rubriflorum</i> F. Muell. ex Benth.	RP	. 2 . . .	SW
<i>Cooperhooia georgei</i> Carolin	DS	1	PK
<i>Cooperhooia polygalaceae</i> (Vriese) Carolin	DS	. 2 3 4.	SW
<i>Cooperhooia strophilota</i> (F. Muell.) Carolin	DS	. . 3 . .	EA
<i>Dampiera diversifolia</i> Vriese	MP	. . . 4.	SW
<i>Dampiera fasciculata</i> R.Br.	DS	1 . 3 . .	SW
<i>Dampiera oligophylla</i> Benth. subsp. <i>junceae</i> (Benth.) Rajput & Carolin	SS	. 2 3 . 5	SW
<i>Dampiera lavandulacea</i> Lindley	DS	. 2 3 4.	EA
<i>Dampiera loranthifolia</i> F. Muell. ex Benth.	DS	1	ER
<i>Dampiera sacculata</i> F. Muell. ex Benth.	DS	. . 3 . .	SW
<i>Goodenia affinis</i> Vriese	MP	. 2 3 4.	EA
<i>Goodenia berardiana</i> (Gaudich.) Carolin	AS	. . . 4.	EA
<i>Goodenia caerulea</i> R.Br.	DS	. 2 . . .	SW
<i>Goodenia concinna</i> Benth.	DS	. 2 3 . .	SW
<i>Goodenia filiformis</i> R.Br. var. <i>filiformis</i>	AS	. . . 4.	SW
<i>Goodenia filiformis</i> R.Br. var. <i>minutiflora</i> F. Muell.	AS	. . . 4.	SW
<i>Goodenia incana</i> R.Br.	DS	. 2 . . .	SW
<i>Goodenia laevis</i> Benth.	DS	. 2 . . .	SW
<i>Goodenia pterygosperma</i> R.Br.	DS	. 2 . . .	SW
<i>Goodenia scapigera</i> R.Br.	SS	1 2 3 . .	WA
<i>Goodenia stenophylla</i> F. Muell.	DS	1	PK
<i>Goodenia viscida</i> R.Br.	DS	. . . 4.	WA
<i>Lechenaultia acutiloba</i> Benth.	DS	. . . 4.	ER
<i>Lechenaultia formosa</i> R.Br.	MP	1 2 3 4 5	SW
<i>Lechenaultia heteromera</i> Benth.	DS	. 2 3 . 5	SW
<i>Lechenaultia superba</i> F. Muell.	SS	1	PK
<i>Lechenaultia tubiflora</i> R.Br.	MP	. 2 . 4 .	SW
<i>Scaevola aemula</i> R.Br.	DS	. . . . 5	EA

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Scaevola crassifolia</i> Labill.	MS	. . . . 5	EA
<i>Scaevola globulifera</i> Labill.	DS	. . . . 5	SW
<i>Scaevola myrtifolia</i> (Vriese) Krause	MS	. . . 4 .	EA
<i>Scaevola pulvinaris</i> (E. Pritzel) Krause var. <i>arenaria</i> E. Pritzel	MP	. . 3 . .	SW
<i>Scaevola striata</i> R.Br.	DS	. 2 3 4 .	SW
<i>Velleia trinervis</i> Labill.	RP	. 2 3 4 5	SW
Stylidiaceae			
<i>Levenhookia dubia</i> Sonder	AS	. . . 4 .	EA
<i>Levenhookia pauciflora</i> Benth.	AS	. 2 . . .	SW
<i>Levenhookia pusilla</i> R.Br.	AS	. 2 . . .	EA
<i>Levenhookia stipitata</i> (Sonder) F. Muell.	AS	. 2 . . .	SW
<i>Stylidium albomontis</i> Carlq.	AS	1	PK
<i>Stylidium assimile</i> R.Br.	RP	. 2 . . .	ER
<i>Stylidium brevicaepum</i> R.Br.	AS	. 2 3 . .	SW
<i>Stylidium bulbiferum</i> Benth.	RP	. 2 . . .	SW
<i>Stylidium calcaratum</i> R.Br. var. <i>calcaratum</i>	AS	. 2 . 4 .	EA
<i>Stylidium caricifolium</i> Lindley subsp. <i>caricifolium</i>	RP	. 2 3 . 5	SW
<i>Stylidium carnosum</i> Benth.	RP	. 2 . . .	SW
<i>Stylidium corymbosum</i> R.Br.	RP	. . . 4 .	SW
<i>Stylidium crassifolium</i> R.Br.	RP	. . . 4 .	SW
<i>Stylidium falcatum</i> R.Br.	AS	. . . . 5	SW
<i>Stylidium galioides</i> C. Gardner	DS	1	PK
<i>Stylidium inundatum</i> R.Br.	DS	. . . 4 .	EA
<i>Stylidium piliferum</i> R.Br. subsp. <i>piliferum</i>	RP	. 2 . . .	SW
<i>Stylidium preissii</i> (Sonder) F. Muell.	DS	. 2 . . .	ER
<i>Stylidium repens</i> R.Br. var. <i>repens</i>	DS	. 2 . . .	SW
<i>Stylidium scandens</i> R.Br.	CL	. 2 . . .	SW
<i>Stylidium schoenoides</i> DC.	RP	. 2 . . .	SW
<i>Stylidium spatulatum</i> R.Br. var. <i>lehmannianum</i> (Sonder) Mildbr.	RP	. . 3 . .	ER
<i>Stylidium spinulosum</i> R.Br. subsp. <i>spinulosum</i>	RP	1	SW
<i>Stylidium squamellosum</i> DC.	RP	1 2 . . .	SW
Asteraceae			
<i>Actinobole uliginosum</i> (A. Gray) H. Eichler	AS	. . . 4 .	EA
<i>Angianthus preissianus</i> (Steetz) Benth.	AS	. . . 4 .	EA
* <i>Arctotheca populifolia</i> (P. Bergius) Norlindh	AS	. . . . 5	
<i>Asteridea nivea</i> (Steetz) G. Kroner	DS	1 . . . 5	SW
<i>Blennospora drummondii</i> A. Gray	AS	. . . 4 .	EA
<i>Brachycome ciliaris</i> (Labill.) Less. var. <i>ciliaris</i>	DS	. . . 4 .	EA
<i>Brachycome iberidifolia</i> Benth.	AS	. . 3 4 .	EA
<i>Brachycome perpusilla</i> (Steetz) J. Black var. <i>perpusilla</i>	AS	. . . 4 .	EA
<i>Calocephalus brownii</i> (Cass.) F. Muell.	DS	. . . . 5	EA
* <i>Centaurea melitensis</i> L.	AS	. . . 4 .	
<i>Chrysocoryne pusilla</i> (Benth.) Endl.	AS	. . . 4 .	EA
<i>Chrysocoryne uniflora</i> Turcz.	AS	. . . 4 .	SW
<i>Cotula australis</i> (Sieber ex Sprengel) J.D. Hook.	AS	. . . 4 .	EA
<i>Cotula coronopifolia</i> L.	AS	. . . 4 .	EA
<i>Cotula cotuloides</i> (Steetz) Druce	AS	. . . 4 .	SW
<i>Craspedia pleiocephala</i> F. Muell.	RP	. . . 4 .	EA
* <i>Dittrichia graveolens</i> (L.) Greuter	AS	. . . 4 .	
<i>Gnaphalium gymnocephalum</i> DC.	AS	. . 3 4 .	EA
<i>Gnephosis tenuissima</i> Cass.	AS	. . . 4 .	SW
<i>Helichrysum cordatum</i> DC.	DS	. . . . 5	SW

Appendix 1 (continued). Floristic list of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Helichrysum lepidophyllum</i> (Steetz) Benth.	DS	. . 3 . .	SW
<i>Helichrysum obtusifolium</i> F. Muell. & Sonder ex Sonder	DS	. 2 3 . .	EA
<i>Helipterum demissum</i> (A. Gray) Druce	AS	. . . 4 .	EA
<i>Helipterum laeve</i> (A. Gray) Benth.	AS	. . . 4 .	EA
<i>Hyalochlamys globifera</i> A. Gray	AS	. . . 4 .	SW
<i>Ixiolaena viscosa</i> Benth.	AS	. . . 4 .	SW
* <i>Hypochaeris glabra</i> L.	AS	. . . 4 .	
<i>Lagenifera huegelii</i> Benth.	RP	. . . 4 .	EA
<i>Millotia tenuifolia</i> Cass.	AS	. . 3 4 .	EA
<i>Olearia axillaris</i> (DC.) F. Muell. ex Benth.	LS	. . . . 5	EA
<i>Olearia ciliata</i> (Benth.) F. Muell. ex Benth. var. <i>ciliata</i>	DS	. 2 . . .	EA
<i>Olearia imbricata</i> (Turcz.) Benth.	DS	. . 3 . .	SW
<i>Olearia muelleri</i> (Sonder) Benth.	SS	. . 3 . .	EA
<i>Olearia muricata</i> (Steetz) Benth.	DS	. . . 4 .	SW
<i>Olearia revoluta</i> F. Muell. ex Benth.	LS	. . 3 4 .	SW
<i>Ozothamnus tephrodes</i> Turcz.	DS	. 2 . . .	WA
<i>Podolepis capillaris</i> (Steetz) Diels	HP	. . 3 4 5	EA
<i>Podolepis lessonii</i> (Cass.) Benth.	AS	. . . 4 .	WA
<i>Podolepis rugata</i> Labill. var. <i>rugata</i>	AS	. . . 4 .	EA
<i>Podotrochea angustifolia</i> (Labill.) Less.	AS	. . . 4 .	EA
* <i>Pseudognaphalium luteo-album</i> (L.) Hilliard & B.L. Burt	AS	. 2 . 4 .	
<i>Ruidosis multiflora</i> (Nees) Robinson	AS	. . . 4 .	EA
<i>Scyphocoronis major</i> (Turcz.) Druce	AS	. 2 . . .	EA
<i>Senecio glomeratus</i> Desf. ex Poir.	AS	. . . 4 .	EA
<i>Senecio glossanthus</i> (Sonder) Belcher	AS	. . . 4 .	EA
<i>Senecio laevis</i> G. Forster ex Willd. subsp. <i>dissectifolius</i> Ali	AS	. . . 4 5	EA
<i>Senecio laevis</i> G. Forster ex Willd. subsp. <i>maritimus</i> Ali	AS	. . . . 5	EA
<i>Senecio quadridentatus</i> Labill.	AS	. 2 . 4 .	EA
<i>Senecio squarrosus</i> A. Rich.	AS	. . . 4 .	EA
* <i>Senecio vulgaris</i> L.	AS	. . . 4 .	
* <i>Ursinia anthemoides</i> (L.) Poir.	AS	. . . 4 .	
<i>Vittadinia australasica</i> (Turcz.) N. Burb. var. <i>australasica</i>	DS	. . . 4 .	EA
<i>Vittadinia gracilis</i> (J.D. Hook.) N. Burb.	DS	. . . 4 .	EA
<i>Waitzia acuminata</i> Steetz	AS	. . . 4 .	EA
<i>Waitzia aurea</i> (Benth.) Steetz	AS	. . . 4 .	SW
<i>Waitzia citrina</i> (Benth.) Steetz	AS	. . . . 5	EA
<i>Waitzia paniculata</i> (Steetz) F. Muell. ex Benth.	AS	. . 3 . .	SW

Supplementary notes on the flora of the Fitzgerald River National Park, Western Australia. - 1. Additional and unnamed taxa, and taxa with a high conservation value

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Abstract

Newbey, K.R. Supplementary notes on the flora of the Fitzgerald River National Park, Western Australia - 1. Additional and unnamed taxa, and taxa with a high conservation value. *Kingia* 1(2): 195-216 (1990). One species of fern ally and 91 species, 1 subspecies and 4 varieties of flowering plants are listed, as well as 95 unnamed taxa, considered here to be species.

Two hundred and forty-six of the taxa recorded for the Park have a high conservation value: considered to be rare (176), endemic (62), more or less confined to the Park (48) and outliers (43). Families with the highest numbers in these categories were Myrtaceae (45), Epacridaceae (27) and Proteaceae (22).

Four plant communities have high numbers of taxa with high conservation values: *Eucalyptus tetragona* - *E. buprestium* - *Banksia baxteri* - *B. attenuata* high open-shrubland on sandplains (Et), Proteaceae - Myrtaceae mixed closed-heath on quartzite and phyllitic schist (PM), *Eucalyptus uncinata* - *E. redunca* - *E. incrassata* - *E. tetragona* high shrubland on upper slopes of broad valleys (Eu) and *Eucalyptus occidentalis* - *E. spp.* woodland along rivers (Ys).

Only 14 of the 176 taxa considered to be rare have been gazetted as rare flora by the Western Australian Government. The flora of extensive areas of the Park is still unknown and requires surveys.

Introduction

The Fitzgerald River National Park (Park) is situated along the south coast of Western Australia, between Bremer Bay and Hopetoun (Figure 1). The Park has an area of 244,677 ha and extends up to 55 km inland. The climate, geology, landforms, soils and vegetation have been summarized by Aplin and Newbey (1990b). The only documentation of the flora is by the same authors (1990a). A two-year biological survey of the Park was commenced in July, 1985, and this paper updates the flora data to that date.

The aims of this paper are to:

- (a) list additional taxa recorded since the flora list was compiled by Aplin and Newbey (1990a);
- (b) present a list of unnamed taxa and;
- (c) present a list of taxa (named and unnamed) which have a high conservation value.

* Deceased July 23, 1988

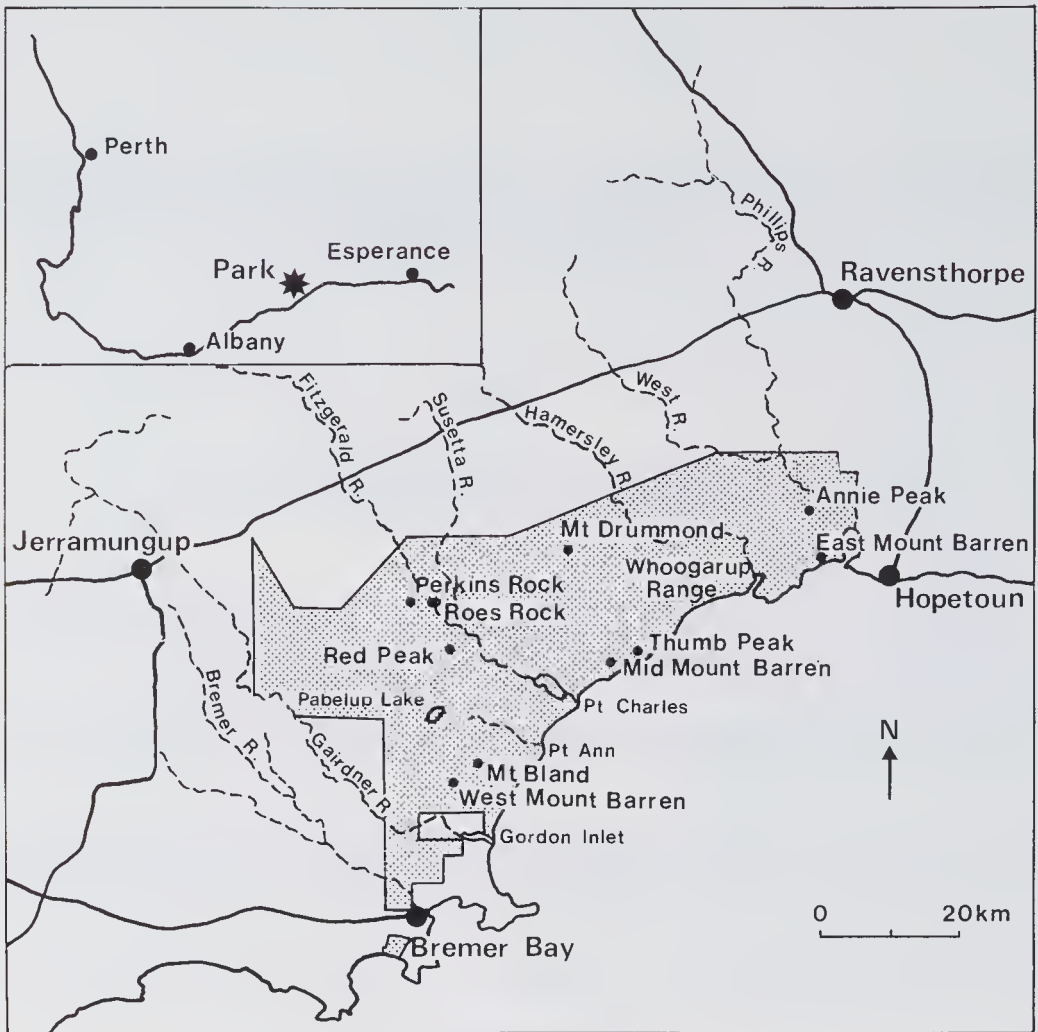


Figure 1. Map showing location of Fitzgerald River National Park.

Methods

The above data were recorded during field work (Newbey 1979, 1981, 1985, unpublished data; Aplin and Newbey 1990a,b). The distribution, frequency and abundance of taxa is based on the author's extensive field knowledge of the Western Australian flora (Newbey 1979, unpublished data; Newbey and Hnatiuk 1984, 1985, Burgman and Newbey 1990), and specimens housed in the Western Australian Herbarium (PERTH).

The conservation status of taxa is based on Marchant and Keighery (1979) and Leigh *et al.* (1981). For the purpose of this paper, rare and outlier are defined below:

Rare: Few populations recorded in the field, whether small or large, or with a restricted or a wide distribution. For instance, *Lawrenzia diffusa* occurs from at least Ongerup to near Balladonia, but the known populations are small and several tens of kilometres apart.

Outlier: (a) At least 100 km from the area of general distribution or (b) in a widely different soil or climatic zone, or small populations between two areas of major distribution (e.g. *Hakea suaveolens* occurs mainly in the vicinity of Albany and Esperance. Two small populations are also known at Bremer Bay and in the Park.).

Government of Western Australia (1988) have listed gazetted rare flora of Western Australia.

Results and Discussion

Additional named taxa

Since the original flora list was compiled (Aplin and Newbey 1990a), one species of fern ally and an additional 91 species, 1 subspecies and 4 varieties of flowering plants have been recorded for the Park (Appendix 1). Ten of the species and one of the varieties are naturalised aliens.

Unnamed taxa

Unnamed taxa were not listed by Aplin and Newbey (1990a). Ninety-five unnamed taxa have been recorded and 24 of these are believed to be endemic to the Park (Appendix 2). The genera with the most unnamed taxa are *Leucopogon* (13), *Acacia* (8) and *Schoenus* (8). For statistical purposes, all unnamed taxa are considered as species.

Comparison of Park and State floras

Altogether, the recorded vascular flora of the park now consists of one species of fern ally, 7 species of ferns, and 1286 species, 16 subspecies and 43 varieties of flowering plants (Table 1). Green (1985) provides data on the Western Australian flora but does not list subspecies or varieties. Botanists with extensive knowledge of the State's flora estimate that approximately 1000 known taxa are at present unnamed. When compared to the State's flora, the Park has a much lower percentage of ferns than flowering plants. The percentage of introduced species is low and this reflects the low level of disturbance of the Park.

Table 1. Numbers of families, genera and species in the Park compared with Western Australia

Category	WA	Park	%
Ferns and fern allies			
Families	20	5	25
Genera	38	7	18
Species	75	8	11
Introduced	3	0	0
Unnamed	?	0	0
Flowering Plants			
Families	191	84	43
Genera	1367	343	25
Species	7879	1286	18
Subspecies	-	16	-
Varieties	-	43	-
Introduced	835	41	5
Unnamed	ca 1000	95	10

Conservation value

Based on the lists of Marchant and Keighery (1979) and Leigh *et al.* (1981), and the assessment of this report, a total of 296 species, 4 subspecies and 8 varieties have an important conservation value, or have been poorly collected in the Park (Appendix 3). Marchant and Keighery based their list on the number of specimens in PERTH (less than 5 collections of a taxon), or if the distribution was less than 160 km across. Their list was correct to January 1979 but additional collections and field work indicated that 44 of the taxa should no longer be considered to have a high conservation value. Leigh *et al.* (1981) based their list mainly on herbarium material and contributions by specialists. Twenty-two of the species which they recorded and which occur in the Park are no longer considered to have an important conservation value. As a result of the above deletions, 246 of the Park's taxa are now considered to have a high conservation value (Table 2).

Table 2. Number of Park taxa with a high conservation value

	More or less confined (A)	Endemic (E)	Outlier (O)	Rare (R and G)	Total
More or less confined (A)	19	-	-	-	19
Endemic (E)	0	11	-	-	11
Outlier (O)	0	0	40	-	40
Rare (R and G)	29	51	3	93	176
Total	48	62	43	93	246

The Park has 62 endemic taxa, and another 48 taxa more or less confined to the Park (Table 2). One hundred and seventy-six taxa are considered to be rare. The families with the greatest number of species with a high conservation value are Myrtaceae (45), Epacridaceae (27) and Proteaceae (22); while the following genera have the most species; *Leucopogon* (21), *Melaleuca* (11) and *Eucalyptus* (9) (Appendix 3). Only 14 of these species are gazetted rare flora (Government of Western Australia 1988, Appendix 3).

Two hundred and nine of the 246 taxa with a high conservation value occur in only one of the vegetation types found in the Park (Table 3). The highest numbers being Et (49), PM (45), Eu (29) and Ys (28). Fifty-three endemics are restricted to a single vegetation type. PM contains about half of these (26), followed by Et (7) and DH and Eu each with 6. PM (13) has the highest number of the 48 taxa more or less confined to the Park, followed by Eu (12), Et (11) and DH (10). A total of thirty-two endemics have been recorded in PM; the main families present being Myrtaceae (10) and Proteaceae (6).

Table 3. Total number of taxa in each vegetation type which have a high conservation value, and are either endemic to or more or less confined to the Park. (Numbers in brackets indicate the number of those taxa which are to be found in more than one vegetation type)

Vegetation type*	% Park area	Number of taxa					
		With a high conservation value		Endemic to the Park		More or less confined to the Park	
Ys	2	33	(5)	1	(0)	6	(3)
Ep	2	8	(3)	0		2	(2)
Ag	1	2	(1)	0		1	(1)
Ea	2	4	(2)	1	(0)	1	(1)
DH	2	24	(7)	6	(0)	10	(5)
Eg	7	22	(3)	3	(0)	6	(1)
Eu	21	40	(11)	7	(1)	12	(5)
Et	46	55	(6)	7	(0)	11	(3)
PM	7	58	(13)	32	(6)	13	(7)
LM	8	12	(7)	9	(6)	1	(1)
PL	1	6	(1)	1	(1)	0	
S	2	5	(1)	0		0	

* See Appendix 3 for explanation of symbols.

Conclusions

The Park has a significant number of taxa with a high conservation value (246 or 18% of the Park flora). This number includes 62endemics and 48 with at least 75% of their distribution within the Park. The four most important vegetation communities are Et, PM, Eu and Ys. Et occupies almost half of the area of the Park (Table 3) and a high number of important taxa is expected. However, the PM and Ys communities have significant numbers in relation to their areas. These four communities will require special attention when drafting management plans for the Park.

This study assessed 176 taxa as being rare. Only 14 of these have been gazetted as rare flora (Government of Western Australia 1988). The remainder require urgent assessment. Some important limitations are present in the methods of assessing conservation values used by Marchant and Keighery (1979), Leigh *et al.* (1981) and Government of Western Australia (1988). None of their methods assessed unnamed taxa, and the first two did not consider subspecies or varieties.

Most field work has been close to existing tracks, leaving extensive areas of the Park unrecorded, and it is likely that many more plant taxa have yet to be recorded. It is probable that a large proportion will have a high conservation value.

Acknowledgements

The following are thanked for their contribution to the preparation of this paper. The professional staff of the Western Australian Herbarium assisted with identifying difficult specimens. Financial assistance for some field trips was provided by the Science and Industry Endowment Fund. Keith Bradby, Norm Stevens and Brenda Newbey (Fitzgerald River National Park Association) assisted with plant recording. Ted Aplin commented on an earlier draft of this paper.

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Appendix 1. Additional named plant taxa of the Fitzgerald River National Park

Families are listed in systematic order. Nomenclature follows Green (1985). Genera and species are in alphabetical order within families.

Key to symbols.

*	=	Naturalised alien
Life form		
ST	=	Small trees (5-15 m)
MT	=	Medium trees (15-30 m)
DT	=	Dwarf trees (less than 5 m)
TS	=	Tall shrubs (over 2 m)
MA	=	Mallees
DS	=	Dwarf woody shrubs (less than 0.5 m)
SS	=	Small woody shrubs (0.5-1 m)
MS	=	Medium woody shrubs (1-1.5 m)
LS	=	Large shrubs (1.5-2 m)
HP	=	Herbaceous shrubs
CL	=	Climbers
MP	=	Mat plants
RP	=	Rosetted perennials
PG	=	Perennial grasses
SC	=	Colonial sedges
SI	=	Tufted sedges
SL	=	Sedge-like plants
AB	=	Terrestrial geophytes
HY	=	Hydrophytes
AS	=	Other annuals
AG	=	Annual grasses
PC	=	Parasitic climbers
Topog.		
1	=	Peaks and ridges of Proterozoic quartzite and phyllitic schist
2	=	Plains
3	=	Gorges
4	=	Major drainage lines and larger swamps
5	=	Coastal dunes
Endem.		
	=	Endemism (These classifications are based on the smallest phytogeographical unit in which the taxa occurs)
WA	=	Endemic to Western Australia
SW	=	Endemic to South-West Botanical Province (Beard 1980)
ER	=	Endemic to Eyre Botanical District (Beard 1980)
PK	=	Endemic to Park
EA	=	Range of distribution extends into eastern Australia (mainly Jessop 1984).

Family and species	Life form	Distribution	
		Topog.	Endem.
Isoetaceae			
<i>Isoetes drummondii</i>	HY	. . . 4 .	SW
Poaceae			
<i>Aristida contorta</i>	PG	. . . 4 .	EA
* <i>Poa bulbosa</i>	AB	. . . . 5	
<i>Stipa variabilis</i>	PG	. . . 4 .	EA

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Cyperaceae			
<i>Eleocharis acuta</i>	SC	. . . 4 .	EA
<i>Mesomelaena graciliceps</i>	SI	. 2 . . .	SW
<i>Schoenus niten</i>	SC	. . . 4 .	EA
<i>Schoenus obtusifolius</i>	SI	. 2 . . .	ER
<i>Schoenus pleiostemoneus</i>	SI	. 2 . . .	ER
<i>Schoenus subfascicularis</i>	SI	. 2 . . .	ER
<i>Schoenus submicrostachyus</i>	SI	. 2 . . .	SW
Restionaceae			
<i>Loxocarya myrioclada</i>	SI	. 2 . . .	SW
<i>Restio confertospicatus</i>	SI	. 2 . . .	ER
Centrolepidaceae			
<i>Centrolepis humillima</i>	AS	. . . 4 .	EA
Hydatellaceae			
<i>Hydatella australis</i>	HY	. . . 4 .	SW
Juncaceae			
* <i>Juncus capitatus</i>	AS	. . . 4 .	
Anthericaceae			
<i>Thysanotus brachiatus</i>	AB	1	ER
<i>Thysanotus gageoides</i>	AB	. 2 . . .	ER
<i>Thysanotus sparteus</i>	AB	. 2 . . .	SW
<i>Thysanotus triandrus</i>	AB	. 2 . . .	SW
Colchicaceae			
<i>Wurmbea cernua</i>	AB	. . . 4 .	ER
Haemodoraceae			
<i>Conostylis deplexa</i>	SL	. 2 . . .	ER
Orchidaceae			
<i>Caladenia douthae</i>	AB	. 2 . . .	SW
<i>Caladenia graminifolia</i>	AB	. . . . 5	ER
<i>Pterostylis rogersii</i>	AB	. 2 . . .	SW
<i>Spiculaea ciliata</i>	AB	. 2 . . .	SW
Casuarinaceae			
<i>Allocasuarina corniculata</i>	LS	. 2 . . .	WA
Proteaceae			
<i>Conospermum stoechadis</i>	SS	. 2 . . .	SW
<i>Grevillea acerosa</i>	DS	. 2 . . .	ER
<i>Hakea brachyptera</i>	DS	. 2 . . .	SW
Chenopodiaceae			
<i>Halosarcia halocnemoides</i> subsp. <i>halocnemoides</i>	DS	. . . 4 .	EA
Amaranthaceae			
<i>Ptilotus drummondii</i>	HP	. . . 4 .	WA

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Gyrostemonaceae			
<i>Gyrostemon sessilis</i>	SS	. 2 . . .	PK
Aizoaceae			
<i>Carpobrotus modestus</i>	MP	. . . 4 .	EA
Portulacaceae			
<i>Calandrinia eremaea</i>	AS	. . . 4 .	EA
Lauraceae			
<i>Cassytha micrantha</i>	PC	. 2 . . .	ER
Droseraceae			
<i>Drosera parvula</i>	RP	. 2 . . .	SW
Crassulaceae			
<i>Crassula colorata</i> var. <i>acuminata</i>	AS	. . . 4 .	EA
<i>Crassula decumbens</i> var. <i>decumbens</i>	AS	. . . 4 .	EA
* <i>Crassula natans</i> var. <i>minus</i>	HY	. . . 4 .	
<i>Crassula sieberiana</i> subsp. <i>tetramera</i>	AS	. . . 4 .	EA
Mimosaceae			
<i>Acacia acuminata</i>	DT	. . . 4 .	WA
<i>Acacia curvata</i>	DS	. . 3 . .	ER
<i>Acacia pulchella</i> var. <i>subsessilis</i>	DS	. . . 4 .	SW
Papilionaceae			
<i>Bossiaea concinna</i>	DS	. 2 . . .	SW
<i>Gompholobium aristatum</i>	DS	. 2 . . .	ER
<i>Jacksonia aphylla</i>	DS	. 2 . . .	SW
<i>Oxylobium tricuspidatum</i>	MP	. . . 4 .	SW
* <i>Trifolium arvense</i>	AS	. . . 4 .	
Polygalaceae			
<i>Comesperma nudiusculum</i>	DS	. 2 . . .	ER
<i>Comesperma polygaloides</i>	DS	. 2 . . .	EA
<i>Comesperma scoparium</i>	SS	. 2 . . .	EA
Rhamnaceae			
<i>Spyridium complicatum</i>	DS	. 2 . 4 .	SW
Sterculiaceae			
<i>Lasiopetalum microcardium</i>	DS	. 2 . . .	ER
<i>Thomasia grandiflora</i>	DS	. 2 . . .	SW
Myrtaceae			
<i>Baeckea pachyphylla</i>	DS	. . . 4 .	SW
<i>Calothamnus affinis</i>	SS	. 2 . . .	SW
<i>Calothamnus lateralis</i>	SS	. 2 . . .	SW
<i>Calytrix depressa</i>	DS	. 2 . . .	SW
<i>Calytrix tetragona</i>	SS	. . . 4 .	EA
<i>Calytrix variabilis</i>	DS	. 2 . . .	SW
<i>Hypocalymma strictum</i> var. <i>strictum</i>	DS	. 2 . . .	SW
<i>Melaleuca conferta</i>	DS	. 2 . . .	SW

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Melaleuca erucaeformis</i>	SS	. 2 . . .	ER
<i>Melaleuca pentagona</i> var. <i>subulifolia</i>	MS	. . 3 . .	ER
<i>Melaleuca viminea</i>	TS	. . . 4 .	SW
<i>Verticordia pennigera</i>	DS	. 2 . . .	SW
<i>Verticordia serrata</i>	DS	. 2 . . .	SW
Haloragaceae			
<i>Haloragis hamata</i>	DS	. 2 . . .	ER
Apiaceae			
<i>Hydrocotyle scutellifera</i>	AS	. . . 4 .	SW
Epacridaceae			
<i>Astroloma pallidum</i>	DS	. 2 . . .	SW
<i>Leucopogon brevicuspis</i>	DS	. . 3 . .	SW
<i>Leucopogon cucullatus</i>	DS	. 2 . . .	SW
<i>Leucopogon striatus</i>	DS	. 2 . . .	ER
Gentianaceae			
* <i>Centaurium erythraea</i>	AS	. . . 4 .	
Solanaceae			
<i>Solanum symonii</i>	HP	. . . 4 .	EA
Myoporaceae			
<i>Eremophila serpens</i>	MP	. . . 4 .	ER
Goodeniaceae			
<i>Dampiera tenuicaulis</i> var. <i>tenuicaulis</i>	DS	. 2 . . .	SW
Stylidiaceae			
<i>Stylidium dichotomum</i>	RP	. 2 . . .	SW
<i>Stylidium hirsutum</i>	RP	. 2 . . .	SW
<i>Stylidium macranthum</i>	RP	1	ER
<i>Stylidium perpusillum</i>	AS	. . . 4 .	EA
<i>Stylidium pseudohirsutum</i>	RP	. 2 . . .	ER
Asteraceae			
* <i>Arctotheca calendula</i>	AS	. . . 4 .	
<i>Brachycome pusilla</i>	AS	. . . 4 .	WA
* <i>Carduus pycnocephalus</i>	AS	. . . 4 .	
<i>Centipeda minina</i>	AS	. . . 4 .	EA
* <i>Cirsium arvense</i>	AS	. . . 4 .	
<i>Helichrysum leucopsideum</i>	AS	. 2 . . .	EA
<i>Helipterum pygmaeum</i>	AS	. 2 . . .	EA
* <i>Hypochaeris glabra</i>	AS	. . . 4 .	
<i>Olearia brachyphylla</i>	DS	. 2 . . .	PK
<i>Podolepis tepperi</i>	AS	. . . 4 .	EA
<i>Quinetia urvillei</i>	AS	. . . 4 .	EA
<i>Siloxerus pygmaeus</i>	AS	. . . 4 .	SW
* <i>Sonchus oleraceus</i>	AS	. . . 4 5	
* <i>Vellereophyton dealbatum</i>	AS	. . . 4 .	

Appendix 2. Unnamed plant taxa

KRN and ASG (A.S. George) voucher specimens have been lodged in PERTH. For explanation of symbols see Appendix 1

Family and species	Life form	Distribution	
		Topog.	Endem.
Poaceae			
Genus indet. sp. (KRN 4047)	PG	. 2 . 4 .	ER
Cyperaceae			
<i>Lepidosperma</i> sp. (KRN 3735)	SI	1	PK
<i>Lepidosperma</i> sp. (KRN 4197)	SI	. . . . 4 .	ER
<i>Lepidosperma</i> sp. (KRN 4664)	SC	. . . . 5	ER
<i>Lepidosperma</i> sp. (KRN 5232)	SC	. 2 3 4 .	SW
<i>Lepidosperma</i> sp. (KRN 4735)	SI	. 2 . . .	SW
<i>Mesomelaena</i> sp. (KRN 3994)	SI	. 2 . . .	ER
<i>Schoenus</i> sp. (KRN 3574)	SI	. 2 . . .	SW
<i>Schoenus</i> sp. (KRN 3906)	SI	. 2 . . .	ER
<i>Schoenus</i> sp. (KRN 3953)	SI	. 2 . . .	SW
<i>Schoenus</i> sp. (KRN 4022)	SI	. 2 . . .	ER
<i>Schoenus</i> sp. (KRN 4138)	SI	. 2 . . .	ER
<i>Schoenus</i> sp. (KRN 4154)	SI	. 2 . . .	ER
<i>Schoenus</i> sp. (KRN 4474)	SI	. . . . 4 .	ER
<i>Schoenus</i> sp. (KRN 8012)	SI	. 2 . . .	ER
<i>Tetraria</i> sp. (KRN 4732)	SI	. 2 . . .	SW
Orchidaceae			
<i>Pterostylis</i> sp. (KRN 9598)	AB	1	PK
Proteaceae			
<i>Grevillea</i> sp. (KRN 4846)	DS	1	PK
<i>Hakea</i> sp. (KRN 5960)	MS	. 2 . . .	SW
<i>Hakea</i> sp. (KRN 8265)	TS	. 2 . . .	ER
<i>Synaphea</i> sp. (KRN 3761)	DS	. 2 . . .	ER
Santalaceae			
Genus indet. sp. (KRN 4981)	MS	. 2 . . .	ER
Olacaceae			
<i>Olax</i> sp. (KRN 4288)	DS	. 2 . . .	ER
Mimosaceae			
<i>Acacia</i> sp. (KRN 1295)	SS	. 2 3 . .	ER
<i>Acacia</i> sp. (KRN 1296)	SS	. . . . 4 .	ER
<i>Acacia</i> sp. (KRN 2472)	LS	. . 3 . .	ER
<i>Acacia</i> sp. (KRN 2726)	MS	1	PK
<i>Acacia</i> sp. (KRN 2730)	DS	1 2 . . .	SW
<i>Acacia</i> sp. (KRN 3484)	SS	. 2 . 4 .	ER
<i>Acacia</i> sp. (KRN 4287)	DS	. 2 . . .	ER
<i>Acacia</i> sp. (KRN 5422)	MS	. 2 . . .	ER
Papilionaceae			
<i>Aotus</i> aff. <i>procumbens</i> (KRN 2476)	MP	. 2 . . .	SW
<i>Daviesia</i> aff. <i>trigonophylla</i> (KRN 312)	MS	. 2 . . .	ER
<i>Daviesia</i> sp. (KRN 1480)	DS	. 2 3 4 .	ER
<i>Daviesia</i> sp. (KRN 5122)	DS	1	ER
<i>Daviesia</i> sp. (KRN 6008)	MS	. . 3 . .	SW
<i>Jacksonia</i> sp. (KRN 3967)	DS	. 2 . . .	SW
<i>Oxylobium</i> sp. (KRN 4035)	TS	. . 3 . .	ER

Appendix 2 (continued). Unnamed plant taxa

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Pultenaea</i> sp. (KRN 3974)	SS	. 2 . . .	PK
Genus indet. sp. (KRN 10941)	MS	1	PK
Tremandraceae			
<i>Tetratheca</i> sp. (KRN 4505)	DS	. . . 4 .	ER
Rhamnaceae			
<i>Cryptandra</i> sp. (KRN 6824)	DS	. 2 . . .	SW
<i>Pomaderris</i> sp. (KRN 2405)	SS	. 2 . . .	ER
<i>Pomaderris</i> sp. (KRN 2688)	MS	. 2 . . .	ER
<i>Spyridium</i> sp. (KRN 4346)	DS	. 2 . . .	ER
<i>Spyridium</i> sp. (KRN 4374)	MS	1	ER
<i>Spyridium</i> sp. (KRN 4642)	DS	. . . 4 .	ER
<i>Spyridium</i> sp. (KRN 4964)	DS	. 2 . . .	ER
<i>Spyridium</i> sp. (KRN 5007)	SS	. 2 . . .	ER
<i>Trymalium</i> sp. (KRN 6811)	MS	. 2 . . .	ER
Dilleniaceae			
<i>Hibbertia</i> sp. (KRN 1678)		1	SW
<i>Hibbertia</i> sp. (KRN 3896)		. 2 . . .	ER
Thymelaeaceae			
<i>Pimelea</i> sp. (KRN 70)	SS	. . . 4 5	ER
<i>Pimelea</i> sp. (KRN 1339)	DS	. 2 . . .	ER
Myrtaceae			
<i>Astartea</i> sp. (KRN 10844)	SS	. 2 . . .	PK
<i>Baeckea</i> sp. (KRN 6542)	SS	. 2 . . .	SW
<i>Chamelaucium</i> sp. (KRN 2650)	MS	. 2 . . .	PK
<i>Darwinia</i> sp. (KRN 2426)	DS	. 2 . . .	ER
<i>Darwinia</i> sp. (KRN 4847)	DS	1	PK
<i>Eucalyptus</i> sp. (KRN 10911)	MA	. . . 4 .	ER
<i>Leptospermum</i> sp. (KRN 1730)	TS	1	PK
<i>Melaleuca</i> sp. (KRN 717)	TS	. . 3 . .	SW
<i>Melaleuca</i> sp. (KRN 2764)	TS	. . 3 . .	SW
<i>Melaleuca</i> sp. (KRN 2768)	MS	. . 3 . .	ER
<i>Melaleuca</i> sp. (KRN 2890)	SS	1	ER
<i>Melaleuca</i> sp. (KRN 3874)	SS	. . 3 . .	PK
<i>Melaleuca</i> sp. (KRN 4913)	SS	. 2 . . .	PK
<i>Melaleuca</i> sp. (KRN 5179)	SS	. 2 . . .	ER
<i>Melaleuca</i> sp. (KRN 10856)	SS	. 2 . . .	ER
<i>Verticordia</i> sp. (KRN 2763)	DS	. . 3 . .	PK
<i>Verticordia</i> sp. (KRN 9739)	SS	. . 3 . .	PK
Genus indet. sp. (KRN 4906)	SS	. . 3 . .	PK
Apiaceae			
<i>Platysace</i> sp. (KRN 4852)	DS	1	PK
Epacridaceae			
<i>Leucopogon</i> sp. (KRN 2677)	DS	. . 3 . .	ER
<i>Leucopogon</i> sp. (KRN 3754)	DS	1 2 . . .	ER
<i>Leucopogon</i> sp. (KRN 4038)	DS	1	PK
<i>Leucopogon</i> sp. (KRN 4082)	DS	1	ER
<i>Leucopogon</i> sp. (KRN 4140)	DS	. 2 . . .	ER

Appendix 2 (continued). Unnamed plant taxa

Family and species	Life form	Distribution	
		Topog.	Endem.
<i>Leucopogon</i> sp. (KRN 4144)	DS	. 2 . . .	ER
<i>Leucopogon</i> sp. (KRN 4246)	DS	. 2 . . .	ER
<i>Leucopogon</i> sp. (KRN 4389)	DS	. . 3 . .	PK
<i>Leucopogon</i> sp. (KRN 4670)	DS	. 2 . . .	ER
<i>Leucopogon</i> sp. (KRN 4899)	DS	. . 3 . .	PK
<i>Leucopogon</i> sp. (KRN 9445)	DS	. 2 . . .	PK
<i>Leucopogon</i> sp. (KRN 9446)	DS	. 2 . . .	PK
<i>Leucopogon</i> sp. (KRN 9608)	DS	. 2 . . .	ER
<i>Monotoca</i> sp. (KRN 3191)	DS	1	PK
<i>Styphelia</i> sp. (KRN 8266)	DS	. 2 . . .	ER
Goodeniaceae			
<i>Dampiera</i> aff. <i>trigona</i> (KRN 11261)	DS	. . 3 . .	ER
<i>Dampiera</i> sp. (KRN 2697)	DS	1	ER
<i>Goodenia</i> sp. (KRN 1726)	MP	. . . 4 .	ER
<i>Scaevola</i> aff. <i>phlebopetala</i> (ASG 7117)	DS	1	ER
<i>Scaevola</i> sp. (KRN 4561)	MP	. . . 4 .	PK
Asteraceae			
<i>Craspedia</i> sp. (KRN 928)	AS	. . . 4 .	WA
<i>Olearia</i> sp. (KRN 10843)	DS	. . . . 5	PK

Appendix 3. Taxa with important conservation values or rarely collected

Families are listed in systematic order. Nomenclature follows Green(1985). Genera and species are in alphabetical order within families.

Key to abbreviations and codes.

Conservation value:

New.	=	Newbey (this paper)
A	=	More or less confined to the Park (75% of known distribution)
E	=	Endemic to the Park
G	=	Gazetted rare flora (Government of Western Australia 1988)
O	=	Outlier
R	=	Rare
Mar.	=	Marchant and Keighery (1979)
A	=	No specimens in PERTH
B	=	Rare
C	=	Type specimen only
D	=	< 5 collections in PERTH
E	=	Collections < 100 km apart
F	=	Collections < 160 km apart
Lei.	=	Leigh <i>et al.</i> (1981)
2	=	Collections < 100 km apart
3	=	Collections > 100 km apart but in small populations
X	=	Presumed extinct
E	=	Endangered, at risk of disappearing
V	=	Vulnerable, not presently endangered
R	=	Rare, not presently endangered
K	=	Poorly known, probably X, E, V or R
C	=	Represented in a national park or proclaimed reserve

Vegetation type: (See Aplin and Newbey 1990b)

Ys	=	<i>Eucalyptus occidentalis</i> - <i>E.</i> spp. woodland
Ep	=	<i>E. platypus</i> - <i>E. gardneri</i> low closed-forest
Ag	=	<i>Agonis flexuosa</i> closed-scrub
Ea	=	<i>E. angulosa</i> - <i>E. platypus</i> var. <i>heterophylla</i> - <i>Melaleuca nesophila</i> closed-scrub
DH	=	<i>Dryandra</i> spp. - <i>Hakea</i> spp. - <i>Allocasuarina</i> spp. open-scrub
Eg	=	<i>E. gardneri</i> - <i>E. conglobata</i> - <i>E. nutans</i> open-scrub
Eu	=	<i>E. uncinata</i> - <i>E. redunca</i> - <i>E. incrassata</i> - <i>E. tetragona</i> high shrubland
Et	=	<i>E. tetragona</i> - <i>E. buprestium</i> - <i>Banksia baxteri</i> - <i>B. attenuata</i> high open-shrubland
PM	=	Proteaceae - Myrtaceae mixed closed-heath
LM	=	Leguminosae - Myrtaceae mixed closed-heath
PL	=	Proteaceae - Leguminosae - Myrtaceae mixed open-heath
S	=	Sedgelands and Swamp Complexes

Frequency and cover/abundance: (subjectively assessed)

A	=	1 or 2 populations	1	=	1 or 2 plants
B	=	Few populations	2	=	Few plants
C	=	Scattered populations	3	=	Few plants to 1% canopy cover
D	=	Frequent populations	4	=	1-5% canopy cover
E	=	Common populations	5	=	6-30% canopy cover
*	=	Estuary margin or salt flat	6	=	31-70% canopy cover

Note: No ecological data are available for *Caladenia nana*, *Pterostylis* sp., *Kunzea spicata*, *Melaleuca elachophylla*, *Verticordia helichrysantha*, *Leucopogon minutiflorus* var. *uliginus*, *Leucopogon unilateralis*, or *Scaevola* aff. *phlebopetala*.

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type												
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S	
Adiantaceae																
<i>Cheilanthes distans</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	A1	..
Aspleniaceae																
<i>Asplenium aethiopicum</i>	O	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Alismataceae																
<i>Damasonium minus</i>	R	D	.	A2	..	..	..	..	..	..	..	..	..	..	..
Poaceae																
<i>Stipa pycnostachya</i>	R	.	.	..	..	..	..	..	..	..	..	..	..	..	*B2
Genus indet. (KRN 4047)	R	.	.	..	..	..	..	..	..	..	..	..	..	..	A2
Cyperaceae																
<i>Baumea juncea</i>	.	D	.	..	..	..	..	..	..	..	..	..	..	..	A4
<i>Gahnia australis</i>	A	.	.	..	..	..	..	..	B4	..	..	..	..	..	..
<i>Gahnia decomposita</i>	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..
<i>Gahnia deusta</i>	.	D	.	..	..	..	..	..	..	..	C4	..	..	..	..
<i>Gahnia drummondii</i>	R	D	.	..	..	..	..	..	..	..	..	..	..	A3	..
<i>Lepidosperma carphoides</i>	.	D	.	..	..	A2	A1	..	..	..	D4	..	..	..	..
<i>Lepidosperma leptophyllum</i>	.	D	3KC	B4	..	..	..	..	..	..	..	..	..	..	A3
<i>Lepidosperma leptostachyum</i>	.	D	.	..	C3	..	..	B2	..	..	..	..	..	..	..
<i>Lepidosperma pubisquameum</i>	.	D	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Lepidosperma ustulatum</i>	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
<i>Lepidosperma</i> sp. (KRN 3735)	E	.	.	..	..	..	..	..	..	..	C4	..	..	..	..
<i>Schoenus armeria</i>	.	D	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Schoenus humilis</i>	.	D	.	B2	..	..	..	..	..	..	..	..	..	..	..
<i>Schoenus obtusifolius</i>	.	.	3KC	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Schoenus subbarbatus</i>	.	D	.	..	..	..	..	..	..	..	C2	..	..	..	..
<i>Schoenus</i> sp. (KRN 3953)	AR	.	.	..	..	..	..	..	..	A2	C2	..	..	..	..
<i>Schoenus</i> sp. (KRN 4138)	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
<i>Scirpus maritimus</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	..	A2
<i>Tetraria</i> sp. (KRN 4732)	R	.	.	..	..	..	B1	..	..	A2	..	..	..	..	..
Restionaceae																
<i>Anarthria polyphylla</i>	.	F	.	..	..	..	..	..	..	..	B3	..	..	..	..
<i>Harperia lateriflora</i>	.	D	.	..	..	..	..	..	..	..	D4	..	..	..	..
<i>Loxocarya myrioclada</i>	.	A	.	..	..	..	..	..	..	B2	..	..	..	..	..
<i>Restio megalotheca</i>	O	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
Hydatellaceae																
<i>Hydatella australis</i>	R	A	.	A2	..	..	..	..	..	..	..	..	..	..	..
Philydraceae																
<i>Philydrella pygmaea</i>	O	.	.	..	..	..	..	..	..	..	..	..	A2	..	..
Colchicaceae																
<i>Burchardia umbellata</i>	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Anthericaceae																
<i>Stawellia gymnocephala</i>	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Thysanotus gageoides</i>	R	D	3EC	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Thysanotus parviflorus</i>	R	C	2VC	..	..	..	..	..	..	..	..	A2	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type												
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S	
Xanthorrhoeaceae																
<i>Xanthorrhoea platyphylla</i>	.	D	.	..	..	..	..	..	..	..	E3	..	..	..	..
Haemodoraceae																
<i>Conostylis deplexa</i>	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Conostylis vaginata</i>	.	F	.	..	..	..	..	..	..	..	D3	..	..	..	..
Orchidaceae																
<i>Caladenia aphylla</i>	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Caladenia ericksonae</i>	O	.	3V	A1	..	..	..	..	..	..	..	..	..	..	..
<i>Caladenia nana</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..
<i>Paracaleana nigrita</i>	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Pterostylis plumosa</i>	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
<i>Pterostylis</i> sp. (KRN 9598)	E	.	.	..	..	..	..	..	..	..	..	..	..	..	..
<i>Thelymitra campanulata</i>	.	.	3RC	..	..	..	..	..	..	..	C2	..	..	..	..
<i>Thelymitra variegata</i>	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Casuarinaceae																
<i>Allocasuarina acuarria</i>	R	.	.	..	..	..	..	..	..	..	A4	..	..	..	..
<i>Allocasuarina corniculata</i>	O	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
<i>Allocasuarina scleroclada</i>	R	.	.	..	..	..	..	C3	..	..	..	..	..	..	..
Proteaceae																
<i>Adenanthos cacomorphus</i>	ER	D	2V	..	..	..	..	..	..	..	A3	..	..	..	..
<i>Adenanthos dobagii</i>	EGR	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Adenanthos ellipticus</i>	EGR	B	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
<i>Adenanthos flavidiflorus</i>	A	E	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Adenanthos glabrescens</i> subsp. <i>exasperata</i>	AR	.	.	..	..	..	..	..	A1	..	..	..	..	..	..
<i>Adenanthos labillardierei</i>	ER	E	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
<i>Adenanthos oreophilus</i>	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Adenanthos venosus</i>	E	D	2RC	..	..	..	..	..	..	..	..	E4	..	..	..
<i>Banksia dryandroides</i>	.	F	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Banksia lemanniana</i>	A	E	.	..	..	..	..	D4	..	..	..	..	..	..	..
<i>Banksia oreophila</i>	O	.	.	..	..	..	..	..	..	..	..	D4	..	..	..
<i>Conospermum petiolare</i>	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Dryandra foliosissima</i>	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Dryandra pluvinosa</i>	.	F	.	..	..	..	..	..	..	..	B3	..	..	..	..
<i>Dryandra pteridifolia</i>	.	.	3RC	..	..	..	..	..	..	..	C3	..	..	..	..
<i>Dryandra quercifolia</i>	.	E	2RC	..	..	..	..	..	..	..	..	E5	..	..	..
<i>Grevillea fistulosa</i>	ER	.	2RC	..	..	..	..	..	..	..	..	B2	..	..	..
<i>Grevillea infundibularis</i>	EGR	.	2RC	..	..	..	..	..	..	..	..	B2	..	..	..
<i>Grevillea</i> sp. (KRN 4846)	ER	.	.	..	..	..	A1	..	..	..	..	..	..	..	..
<i>Hakea baxteri</i>	.	.	3R	..	..	..	..	..	..	..	B3	..	..	..	..
<i>Hakea cucullata</i>	.	F	.	..	..	..	..	..	..	..	D4	A3	..	..	..
<i>Hakea florida</i>	O	.	.	A3	..	..	..	..	..	..	..	..	..	..	..
<i>Hakea hookeriana</i>	E	E	2RC	..	..	..	..	..	..	..	..	C4	..	..	..
<i>Hakea obtusa</i>	A	E	2RC	..	..	..	..	D4	..	..	..	C3	..	..	..
<i>Hakea suaveolens</i>	O	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
<i>Hakea victoria</i>	A	E	2RC	..	..	..	..	..	..	..	C4	C4	..	..	..
<i>Hakea</i> sp. (KRN 8265)	AR	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Isopogon longifolius</i>	.	.	3RC	..	..	..	..	..	..	..	C2	..	..	..	..
<i>Isopogon polycephalus</i>	.	F	.	..	..	..	..	B2	..	B2	..	..	..	..	..
<i>Persoonia dillwynioides</i>	R	A	2RC	..	..	..	..	A1	..	..	..	..	..	..	..
<i>Synaphea favosa</i>	.	.	3K	..	..	..	..	..	..	..	D3	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type													
	New.	Mar.	Lci.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S		
Santalaceae																	
<i>Genus indet.</i> (KRN 4981)	R	.	.	..	..	..	..	..	A1	..	..	..	..	..	..	..	..
Olacaceae																	
<i>Ola</i> sp. (KRN 4288)	AR	.	.	..	..	..	..	..	..	..	B1	..	..	..	..	..	..
Chenopodiaceae																	
<i>Halosarcia undulata</i>	O	.	.	A4*	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Sclerostegia arbuscula</i>	O	.	.	A4*	..	..	..	..	..	..	..	..	..	..	..	..	..
Amaranthaceae																	
<i>Ptilotus drummondii</i> var. <i>elongatus</i>	ER	.	.	..	..	..	..	..	..	A1	..	..	..	..	..	..	..
<i>Ptilotus stirlingii</i> var. <i>laxus</i>	R	.	.	..	..	..	A1	..	..	..	..	..	..	..	..	..	..
Gyrostemonaceae																	
<i>Gyrostemon sessilis</i>	ER	.	.	..	..	..	..	..	..	..	A2	..	..	..	..	..	..
Aizoaceae																	
<i>Carpobrotus modestus</i>	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Carpobrotus rossii</i>	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Carpobrotus virescens</i>	.	D	.	..	..	..	C3	..	..	..	..	..	..	..	..	..	..
<i>Macarthuria apetala</i>	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..	..	..
Portulacaceae																	
<i>Calandrinia eremaea</i>	O	.	.	B2	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Calandrinia corrigioloides</i>	O	.	.	A1	..	..	..	..	..	..	..	..	..	..	..	..	..
Lauraceae																	
<i>Cassytha glabella</i>	.	A	.	B1	..	B2	A2	B1	..	B1	C1	B1	..	B1	..	..	..
<i>Cassytha melantha</i>	.	D	.	B1	..	..	..	..	B2	..	..	..	..	..	..	..	..
<i>Cassytha micrantha</i>	R	A	2K	..	..	..	..	..	..	..	B1	..	..	..	..	..	..
<i>Cassytha racemosa</i>	.	.	3KC	A1	..	B1	B1	..	..	..	B1	B1	B1	..	..	..	..
Brassicaceae																	
<i>Lepidium rotundum</i>	.	D	.	B1	..	..	..	..	A1	..	..	..	..	..	..	..	..
Droseraceae																	
<i>Drosera bulbosa</i>	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..	..	..
<i>Drosera stolonifera</i> subsp. <i>compacta</i>	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..	..	..
Crassulaceae																	
<i>Crassula exserta</i>	.	D	.	E3	B2	B2	B2	..	..	C2	..	..	..	..	..	B1	..
<i>Crassula pedicellosa</i>	.	D	.	B2	..	..	..	..	..	..	..	..	..	..	..	..	..
Pittosporaceae																	
<i>Billardiera villosa</i>	AR	.	.	..	..	..	..	..	B1	..	..	..	..	..	..	..	..
Mimosaceae																	
<i>Acacia acellerata</i>	A	.	.	B2	..	..	..	..	..	B2	..	..	..	..	..	..	..
<i>Acacia arguifolia</i>	EGR	D	2RC	..	..	..	..	..	..	..	..	..	..	B2	..	..	..
<i>Acacia cedroides</i>	E	.	.	..	..	..	..	..	..	..	..	..	..	D4	B3	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type												
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S	
<i>Acacia dermatophylla</i>	R	.	.	..	..	..	..	..	..	B1	..	..	..	..	..
<i>Acacia empelioclada</i>	AR	F	.	B1	..	..	..	..	..	B2	..	..	..	..	..
<i>Acacia glaucoptera</i>	.	F	3RC	C3	D2	..	..	B2	C3	B2	..	..	..	..	..
<i>Acacia heteroclita</i>	R	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Acacia ingrata</i>	R	.	.	..	..	..	..	..	B2	..	..	..	..	..	..
<i>Acacia loricina</i>	R	.	.	..	..	..	..	..	..	B2	B2	..	..	..	..
<i>Acacia moirii</i> subsp. <i>dasycarpa</i>	ER	.	.	..	..	..	..	..	..	..	..	B2	B2	..	..
<i>Acacia phlebopetala</i> var. <i>phlebopetala</i>	AR	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Acacia phlebopetala</i> var. <i>pubescens</i>	ER	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Acacia simulans</i>	EGR	D	2RC	..	..	..	..	A2	..	..	..	..	..	..	..
<i>Acacia tetanophylla</i>	R	.	.	..	..	..	..	..	..	B2	..	..	..	..	..
<i>Acacia</i> sp. (KRN 2726)	ER	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
Papilionaceae																
<i>Chorizema trigonum</i>	.	F	.	..	..	..	..	..	..	B2	..	B2	B2	..	..
<i>Chorizema uncinatum</i>	R	F	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Daviesia abnormis</i>	R	E	.	..	..	..	..	..	..	..	C2	..	..	..	..
<i>Daviesia anceps</i>	.	.	2RC	..	..	..	..	..	C4	..	..	..	..	..	..
<i>Daviesia striata</i>	A	.	2RC	..	..	..	..	..	C4	..	..	..	..	..	..
<i>Daviesia</i> aff. <i>trigonophylla</i>	.	.	2RC	..	..	..	..	..	..	B2	B2	..	..	..	..
<i>Daviesia</i> sp. (KRN 5122)	AR	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
<i>Eutaxia cuneata</i>	.	F	3RC	..	..	..	..	..	..	B2	B2	..	..	B2	..
<i>Gastrobium stenophyllum</i>	AR	.	.	B2	..	..	..	..	..	..	..	..	..	..	..
<i>Glycine clandestina</i> var. <i>clandestina</i>	O	.	.	..	..	..	..	..	A1	..	..	..	..	..	..
<i>Jacksonia compressa</i>	E	.	.	..	..	..	..	..	..	..	..	C3	B3	..	..
<i>Oxylobium carinatum</i>	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
<i>Oxylobium coriaceum</i>	.	F	.	..	..	..	..	..	C2	..	..	..	..	..	..
<i>Oxylobium microphyllum</i>	.	F	.	..	..	..	..	..	C2	C2	..	..	..	..	..
<i>Oxylobium racemosum</i>	.	.	2RC	..	..	..	..	..	..	B3	B2	..	..	..	..
<i>Pultenaea adunca</i>	.	F	.	..	..	..	..	..	..	..	C2	..	..	..	..
<i>Pultenaea calycina</i>	AR	E	2RC	..	..	..	..	..	..	B2	..	..	..	..	..
<i>Pultenaea spinulosa</i>	OR	D	3RC	..	..	..	..	..	A2	..	..	..	..	..	..
<i>Pultenaea verruculosa</i> var. <i>pilosa</i>	AR	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Pultenaea</i> sp. (KRN 3974)	ER	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Sphaerolobium nudiflorum</i>	R	.	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Templetonia neglecta</i>	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
Genus indet. (KRN 10941)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Rutaceae																
<i>Boronia clavata</i>	R	F	2R	A3	..	..	..	..	..	..	..	..	..	..	..
<i>Boronia octandra</i>	R	.	.	..	..	..	..	..	..	A2	A1	..	..	..	..
<i>Boronia oxyantha</i> var. <i>brevicalyx</i>	A	.	.	..	..	..	..	C2	..	..	..	..	..	..	..
<i>Boronia oxyantha</i> var. <i>oxyantha</i>	AR	.	3RC	..	..	..	..	B1	..	..	..	..	..	..	..
<i>Boronia penicillata</i>	R	D	.	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Eriostemon cymbiformis</i>	ER	D	2RC	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Rhadinothamnus euphemiae</i>	OR	D	.	..	..	..	..	..	..	..	..	A2	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Tremandraceae															
<i>Platytheca galioides</i>	O	.	.		..	..	..	..	..	..	..	A2	..	..	..
<i>Platytheca juniperina</i>	A	.	.		..	..	..	..	..	..	..	A2	..	..	..
<i>Tetratheca</i> sp. (KRN 4505)	R	.	.		..	..	..	..	..	..	..	..	..	A1	..
Polygalaceae															
<i>Comesperma lanceolatum</i>	R	A	2X		..	..	..	..	..	..	B1	..	..	..	..
Euphorbiaceae															
<i>Amperea conferta</i>	O	D	.		..	..	..	..	..	..	..	A1	..	..	..
<i>Beyeria latifolia</i>	R	D	2RC		..	..	..	..	..	..	..	..	B2	..	..
<i>Calycopeplus marginatus</i>	E	E	2RC		..	..	..	B3	..	..	..	..	..	..	..
<i>Ricinocarpos trichophorus</i>	GR	D	2RC		..	..	..	..	A2	..	..	..	..	..	..
Sapindaceae															
<i>Dodonaea trifida</i>	R	D	3RC		..	..	..	..	..	A2	..	..	..	..	..
Rhamnaceae															
<i>Cryptandra leucopogon</i>	.	.	2K		..	..	..	..	..	..	B2	..	..	..	..
<i>Pomaderris oraria</i>	R	D	.		..	..	..	..	B1	B1	..	..	..	..	..
<i>Pomaderris racemosa</i>	R	D	.		A1	..	..	..	..	..	..	..	..	..	..
<i>Siegfriedia darwinoides</i>	R	B	.		..	A3	..	..	..	..	..	..	..	..	..
<i>Spyridium oligocephalum</i>	.	D	.		A1	..	..	..	A1	B2	..	..	..	..	..
<i>Spyridium</i> sp. (KRN 4346)	R	.	.		..	..	..	..	..	..	A2	..	..	..	..
<i>Spyridium</i> sp. (KRN 4642)	R	.	.		A1	..	..	..	..	..	..	..	..	..	..
<i>Spyridium</i> sp. (KRN 5007)	R	.	.		..	..	..	..	..	A3	..	..	..	..	..
<i>Trymalium</i> sp. (KRN 6811)	R	.	.		..	..	..	..	..	A2	..	..	..	..	..
Malvaceae															
<i>Lawrencia diffusa</i>	R	D	2RC		..	..	..	..	A2	..	..	..	..	..	..
<i>Lawrencia glomerata</i>	O	.	.		A2*	..	..	..	..	..	..	..	..	..	..
Sterculiaceae															
<i>Lasiopetalum compactum</i>	R	.	.		..	B1	..	..	C2	..	..	..	..	..	..
<i>Lasiopetalum indutum</i>	A	.	.		..	..	..	..	..	..	C2	..	..	..	..
<i>Lasiopetalum microcardium</i>	R	F	.		..	..	..	..	A3	..	..	..	..	..	..
<i>Lasiopetalum monticolum</i>	R	.	.		..	..	..	..	..	..	..	B1	..	..	..
<i>Lasiopetalum parvuliflorum</i>	AR	.	.		A2	..	..	..	..	A3	..	..	..	..	A1
<i>Lasiopetalum quinquenervium</i>	A	.	.		..	..	..	..	..	B2	..	..	..	..	..
<i>Lasiopetalum rosmarinifolium</i>															
var. <i>latifolium</i>	R	.	.		..	..	..	A2	..	..	..	..	..	..	..
<i>Rulingia platycalyx</i>	R	F	.		..	A2	..	..	..	..	..	..	..	..	..
<i>Thomasia microphylla</i>	R	.	.		..	..	..	..	..	B1	..	..	..	..	..
<i>Thomasia pygmaea</i>	AR	.	.		..	..	..	..	..	..	A1	..	..	..	..
<i>Thomasia stelligera</i>	R	E	.		..	..	..	..	..	..	A1	..	..	..	..
Frankeniaceae															
<i>Frankenia tetrapetala</i>	.	.	3RC		C3*	..	..	..	..	..	..	..	..	..	..
Thymelaeaceae															
<i>Pimelea physodes</i>	A	B	2RC		..	..	..	..	..	..	C2	B1	..	..	..
<i>Pimelea</i> sp. (KRN 1339)	R	.	.		..	..	..	..	..	..	A1	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type													
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S		
Myrtaceae																	
<i>Agonis undulata</i>	ER	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
<i>Astartea</i> sp. (KRN 10844)	ER	.	.	..	..	..	..	..	..	..	A3	..	..	..	..
<i>Baeckea ovalifolia</i>	E	.	.	..	..	..	..	..	..	..	..	C2	C2	..	..
<i>Baeckea oxycoccoides</i>	R	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
<i>Calothamnus macrocarpus</i>	ER	.	.	..	..	..	..	..	..	..	..	B2	..	..	..
<i>Calothamnus pinifolius</i>	A	E	2VC	..	..	..	..	..	B2	..	..	D4	..	..	..
<i>Calothamnus validus</i>	ER	E	2VC	..	..	..	..	..	..	..	..	B1	..	..	..
<i>Calytrix depressa</i>	O	.	.	..	..	..	..	..	..	..	B4	..	..	..	..
<i>Calytrix simplex</i>	AR	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
<i>Chamelaucium brevifolium</i>	O	.	.	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Chamelaucium</i> sp. (KRN 2650)	ER	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
<i>Darwinia</i> sp. (KRN 4847)	ER	.	.	..	..	..	..	..	..	..	..	..	A2	..	..
<i>Eucalyptus acies</i>	AR	F	2RC	..	..	..	..	..	..	..	..	B3	..	..	..
<i>Eucalyptus albida</i>	O	.	.	..	..	..	..	..	..	..	A3	..	..	..	..
<i>Eucalyptus burdettiana</i>	EGR	B	2VC	..	..	..	..	..	..	..	..	A3	..	..	..
<i>Eucalyptus buprestium</i>	.	F	.	..	..	..	..	..	..	..	C4	..	..	..	..
<i>Eucalyptus conferruminata</i>	R	.	.	..	..	..	..	..	..	..	..	B4	..	..	..
<i>Eucalyptus coronata</i>	EGR	B	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
<i>Eucalyptus gardneri</i>	.	.	3RC	B1	D5	..	..	C2	E5	C2	..	..	..	..	..
<i>Eucalyptus macrandra</i>	R	.	2RC	C3	..	..	..	..	..	..	..	..	..	..	..
<i>Eucalyptus megacornuta</i>	R	B	2V	..	..	..	..	..	..	..	..	A3	..	..	..
<i>Eucalyptus newbeyi</i>	R	.	.	..	A4	..	..	..	..	..	..	..	..	..	..
<i>Eucalyptus nutans</i>	.	.	2RC	..	B1	..	..	B1	E4	..	..	A3	..	..	..
<i>Eucalyptus sepulcralis</i>	E	B	2RC	..	..	..	..	..	..	..	..	D5	..	..	..
<i>Eucalyptus xanthonema</i>	.	.	2V	C1	..	..	..	..	..	C1	..	..	..	..	..
<i>Kunzea eriocalyx</i>	AR	D	2KC	..	C2	..	..	B1	..	..	..	..	..	..	..
<i>Kunzea jucunda</i>	R	F	.	..	..	..	..	..	..	C3	B3	..	..	..	..
<i>Kunzea spicata</i>	R	.	2K	..	..	..	..	..	..	..	..	..	..	..	..
<i>Kunzea vestita</i>	O	.	.	..	..	..	..	..	..	..	..	A4	..	..	..
<i>Leptospermum</i> sp. (KRN 1730)	ER	.	.	..	..	..	..	..	..	..	..	A5	..	..	..
<i>Melaleuca apodocephala</i>	R	D	3K	..	..	..	..	..	..	B2	..	..	..	..	..
<i>Melaleuca citrina</i>	E	E	2RC	..	..	..	..	..	..	..	..	E4	..	..	..
<i>Melaleuca coccinea</i>	O	E	3V	..	..	..	..	..	..	..	..	..	..	..	A2	..	
<i>Melaleuca elachophylla</i>	ER	C	1K	..	..	..	..	..	..	..	..	..	..	..	..
<i>Melaleuca nesophila</i>	A	E	3RC	..	..	C4	C4	..	..	..	..	C4	..	..	..
<i>Melaleuca sclerophylla</i>	.	.	2V	..	..	..	..	..	..	C3	D4	..	..	..	C3	..	
<i>Melaleuca sparsiflora</i>	R	D	2K	..	..	..	..	..	..	A3	..	..	..	..	..
<i>Melaleuca</i> sp. (KRN 717)	R	.	.	A1	..	..	..	B2	..	..	..	..	..	..	..
<i>Melaleuca</i> sp. (KRN 2768)	ER	.	.	..	..	..	..	B4	..	..	..	..	..	..	..
<i>Melaleuca</i> sp. (KRN 3874)	ER	.	.	..	..	..	..	..	A2	..	..	..	..	..	..
<i>Melaleuca</i> sp. (KRN 4913)	ER	.	.	..	..	..	..	..	..	A5	..	..	..	..	..
<i>Melaleuca</i> sp. (KRN 10856)	A	.	.	..	..	..	..	..	..	B4	..	..	..	..	..
<i>Regelia velutina</i>	E	B	2RC	..	..	..	..	..	..	..	..	D4	..	..	..
<i>Verticordia fastigiata</i>	A	E	2RC	..	..	..	..	C3	..	..	..	..	..	..	..
<i>Verticordia helichrysantha</i>	GR	D	2RC	..	..	..	..	..	..	..	..	..	..	..	..
<i>Verticordia oxylepis</i>	A	F	.	..	..	..	..	C3	..	..	..	..	..	..	..
<i>Verticordia serrata</i>	O	.	.	..	..	..	..	..	..	A3	..	..	..	..	..
<i>Verticordia</i> sp. (KRN 2763)	ER	.	.	..	..	..	..	B4	..	..	..	..	..	..	..
<i>Verticordia</i> sp. (KRN 9739)	ER	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Genus indet. (KRN 4906)	ER	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Haloragaceae																	
<i>Gonocarpus trichostachyus</i>	R	.	3K	..	..	..	..	..	..	B3	..	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type												
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S	
Apiaceae																
<i>Hydrocotyle medicaginoidea</i>	.	D	.	D3	..	..	..	..	..	..	..	..	..	..	..	..
<i>Hydrocotyle rugulosa</i>	.	D	.	C2	..	..	..	..	..	..	..	..	..	..	C2	..
<i>Platysace compressa</i>	.	E	.	..	..	D3	D3	..	..	..	..	..	..	D3	..	..
<i>Platysace deflexa</i>	.	.	2RK	..	..	..	..	..	..	C3	C3	..	..	..	..	..
<i>Platysace</i> sp. (KRN 4852)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Xanthosia hederifolia</i>	R	D	3K	..	..	..	..	..	..	..	A2	..	..	..	..	..
Epacridaceae																
<i>Acrotriche plurilocularis</i>	R	.	.	..	A2	..	..	..	..	..	..	..	..	..	..	..
<i>Andersonia micrantha</i>	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Conostephium drummondii</i>	.	D	.	..	..	..	..	..	..	..	C3	..	..	..	..	..
<i>Leucopogon bossiaea</i>	R	D	3K	..	..	..	..	..	..	B2	..	..	..	..	..	..
<i>Leucopogon brevicuspis</i>	R	.	3K	..	..	..	..	A1	..	..	..	..	..	..	..	..
<i>Leucopogon corynocarpus</i>	.	F	.	..	..	..	..	..	..	..	B2	..	..	..	..	..
<i>Leucopogon durus</i>	R	D	2RC	..	..	..	..	..	A3	..	..	..	..	..	..	..
<i>Leucopogon elatior</i>	AR	.	.	..	..	..	..	..	A2	..	..	..	..	..	..	..
<i>Leucopogon insularis</i>	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..	..
<i>Leucopogon minutiflorus</i> var. <i>uliginus</i>	R	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Leucopogon opponens</i>	AR	D	2K	..	..	..	..	..	..	B3	..	..	..	..	..	..
<i>Leucopogon oxycedrus</i>	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..	..
<i>Leucopogon rubicundus</i>	A	.	.	..	C3	..	..	B2	..	..	..	..	..	..	..	..
<i>Leucopogon unilateralis</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Leucopogon woodsii</i>	AR	D	.	..	..	..	..	..	..	..	A1	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 2677)	R	.	.	..	..	..	..	B2	..	..	..	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 3754)	AR	.	.	..	..	..	..	..	..	A2	..	B2	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4038)	ER	.	.	..	..	..	..	..	..	..	..	B2	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4144)	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4246)	AR	.	.	..	..	..	..	..	..	..	A3	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4389)	ER	.	.	..	..	..	..	..	A2	..	..	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4670)	AR	.	.	..	..	..	..	..	..	B3	..	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 4899)	ER	.	.	..	..	..	..	..	A4	..	..	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 9445)	ER	.	.	..	..	..	..	..	..	A3	..	..	..	..	..	..
<i>Leucopogon</i> sp. (KRN 9446)	ER	.	.	..	..	..	..	..	..	A3	..	..	..	..	..	..
<i>Monotoca</i> sp. (KRN 3191)	ER	.	.	..	..	..	..	..	..	..	..	A4	..	..	..	..
<i>Styphelia melaleucoides</i> var. <i>ovata</i>	AR	.	.	..	..	..	..	A2	..	..	..	A2	..	..	..	..
<i>Styphelia pulchella</i>	R	.	.	..	..	..	..	..	A3	..	..	..	..	..	..	..
<i>Styphelia</i> sp. (KRN 8266)	AR	.	.	..	..	..	..	..	..	..	A1	..	..	..	..	..
Loganiaceae																
<i>Logania callosa</i>	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..	..
Convolvulaceae																
<i>Wilsonia rotundifolia</i>	R	.	.	A4	..	..	..	..	..	..	..	..	..	..	..	..
Boraginaceae																
<i>Heliotropium undulatum</i>	O	.	.	A1	..	..	..	..	..	..	..	..	..	..	..	..
Chloanthaceae																
<i>Pityrodia exserta</i> var. <i>exserta</i>	ER	.	.	..	..	..	..	..	..	..	..	A2	..	..	..	..
Lamiaceae																
<i>Microcorys longiflora</i>	ER	E	2RC	..	..	..	..	..	..	A2	..	A2	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type															
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S				
<i>Prostanthera serpyllifolia</i> subsp. <i>microphylla</i>	.	D	.	..	..	..	..	..	B2	B2	..	..	..	..	..
<i>Teucrium sessiliflorum</i>	O	.	.	..	A3	..	..	..	..	..	..	..	..	..	..
Solanaceae																			
<i>Anthocercis fasciculata</i>	ER	D	2RC	..	..	..	..	..	..	..	..	C2	C2	..	..		
Lentibulariaceae																			
<i>Utricularia violacea</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	A2	..
Myoporaceae																			
<i>Eremophila denticulata</i>	GR	D	2KC	A2	..	..	..	..	..	..	..	..	..	..	..
<i>Eremophila phillipsii</i>	O	E	2K	A1	..	..	..	..	..	..	..	..	..	..	..
<i>Eremophila serpens</i>	GOR	.	2E	A2	..	..	..	..	A3	..	..	..	..	..	..
<i>Myoporum beckeri</i>	R	E	2RC	..	..	..	..	..	A3	..	..	..	..	..	..
<i>Myoporum salsoides</i>	GR	D	3K	A2	..	..	..	..	..	..	..	..	..	..	..
Rubiaceae																			
<i>Opercularia apiciflora</i>	R	.	.	B1	..	..	..	..	..	..	..	..	..	..	..
<i>Opercularia liberiflora</i>	AR	D	.	A1	..	..	..	..	..	..	..	..	..	..	..
Goodeniaceae																			
<i>Cooperookia georgei</i>	ER	D	2RC	..	..	..	..	..	..	..	..	A3	..	..	..	
<i>Dampiera</i> sp. (KRN 2697)	AR	D	.	..	..	..	..	..	..	..	..	C2	..	..	..	
<i>Dampiera diversifolia</i>	R	D	3RC	B4	..	..	..	..	..	..	..	..	..	..	..
<i>Dampiera loranthifolia</i>	A	.	.	..	..	..	..	B1	..	..	..	C2	..	..	..	
<i>Dampiera</i> aff. <i>trigona</i>	.	.	3K	..	..	..	..	C3	..	C3	..	..	..	..	..
<i>Goodenia stenophylla</i>	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..	
<i>Goodenia</i> sp. (KRN 1726)	AR	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
<i>Lechenaultia acutiloba</i>	R	E	2RC	A4	..	..	..	..	..	..	..	..	..	..	..
<i>Lechenaultia superba</i>	EGR	B	2RC	..	..	..	..	..	..	..	..	A3	..	..	..	
<i>Scaevola myrtifolia</i>	R	.	.	A1	..	..	..	..	..	..	..	..	..	..	..
<i>Scaevola</i> aff. <i>phlebotetala</i>	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..
<i>Scaevola</i> sp. (KRN 4561)	ER	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
Stylidiaceae																			
<i>Levenhookia pauciflora</i>	.	D	.	..	..	..	..	..	..	B1	B1	..	..	..	..
<i>Stylidium albomontis</i>	ER	B	2RC	..	..	..	..	..	..	..	..	C2	..	..	..	
<i>Stylidium assimile</i>	R	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Stylidium carnosum</i>	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
<i>Stylidium corymbosum</i>	R	.	2RC	..	..	..	..	..	..	..	..	..	..	..	A4
<i>Stylidium galioides</i>	EGR	B	2RC	..	..	..	..	..	..	..	..	C3	C2	..	..		
<i>Stylidium macranthum</i>	.	D	.	..	..	..	..	..	..	..	..	A1	..	..	..	
<i>Stylidium pseudohirsutum</i>	AR	D	.	..	..	..	..	..	..	..	A2	..	..	..	..
Asteraceae																			
<i>Gnephosis tenuissima</i>	R	D	3K	A3	..	..	..	..	..	..	..	..	..	..	..
<i>Olearia brachyphylla</i>	ER	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
<i>Olearia</i> sp. (KRN 10843)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..	
<i>Ozothamnus tephrodes</i>	O	.	.	..	..	..	..	..	A3	..	..	..	..	..	..
<i>Senecio squarrosus</i>	R	D	.	..	..	A1	..	..	..	..	..	..	..	..	..

The flora of the Pyramid Lake - Mt Beaumont Districts, near Esperance, Western Australia

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Abstract

Burgman, M.A. and Newbey, K.R. The flora of the Pyramid Lake - Mt Beaumont Districts, near Esperance, Western Australia. *Kingia* 1(2): 217-253 (1990). A total of 1351 vascular plant taxa were identified from approximately 4000 collections made in the eastern Roe Botanical District between 1980 and 1984. Frequency and cover/abundance data were collected for each taxon in each of the eight landforms present. Life form, conservation status, representation on existing conservation reserves, and distribution within seven biogeographical regions were also recorded.

The flora was dominated by taxa from the Myrtaceae (17%), Proteaceae (8%) and Mimosaceae (8%). Dwarf shrubs (35%) were the dominant life form. Endemism was high (10%) and the number of exotic plants low (3%). The flora of the study area bears strongest relationship to the South-West Botanical Province, with 32% of the taxa also occurring there. Twenty per cent of the total taxa are also found in South Australia.

The flora contained 266 (20%) undescribed taxa and 149 taxa (11%) were considered to be rare, geographically restricted or very poorly known. Only a small proportion of the total flora (17%) and very few of the rare species were known to be adequately represented on existing conservation reserves or national parks. These facts emphasised the need for further detailed botanical studies before any land in the study area is considered for release for agricultural development.

Introduction

This study was undertaken to record the flora of land proposed for agricultural development north of Esperance. The Rural and Allied Industries Council (R.A.I.C. 1979) considered that there were 2.7 million hectares of vacant Crown Land available, which may be suitable for agricultural development in the Forrestiana-Lake Johnston and Salmon Gums-Israelite Bay areas. These areas included the Pyramid Lake and Mt Beaumont Districts, north of existing farmland between the No. 1 Rabbit Proof Fence, north-east of Ravensthorpe, and the western boundary of the Cape Arid National Park (Figure 1). The study area is largely within the Roe Botanical District, with a small south-eastern section within the Eyre Botanical District (Beard 1980). Farmland around Salmon Gums separates the two districts which together cover approximately 12,000 km². They are referred to collectively here as the study area. Since the R.A.I.C. (1979) report was released, some land in the Mt Beaumont District, and near Cascades in the Pyramid Lake District was made available for agriculture. However, the State Government presently has a moratorium on further land release.

* Deceased July 23, 1988

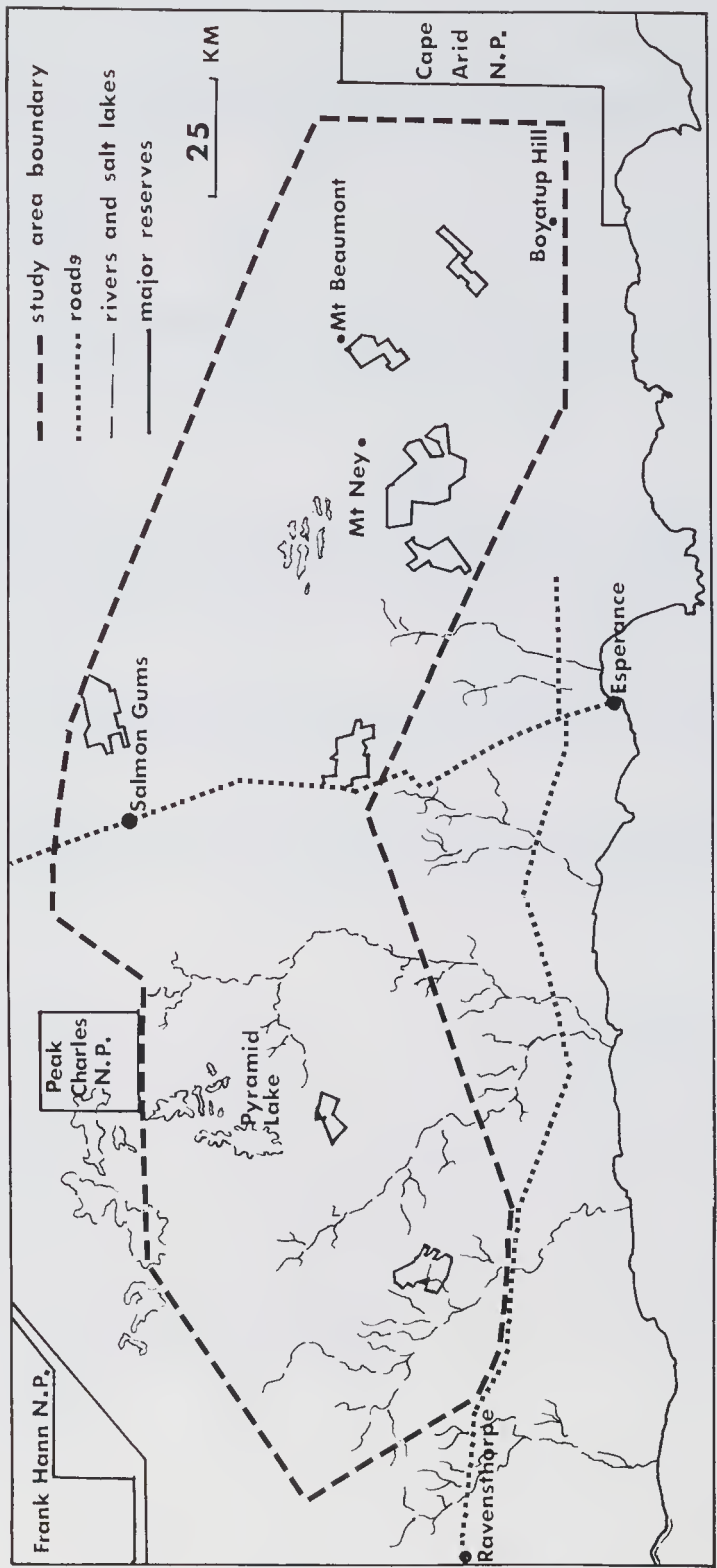


Figure 1. Map of the Study Area

The flora of the study area has not been documented. An earlier assessment of conservation reserves by the Conservation Through Reserves Committee (1974) did not recommend that any sections of the study area be considered for preservation, undoubtedly because very few collections of flora and fauna had been made there. A private overview survey (by KRN) of the study area recorded a number of rare species and a few new to science. This deficiency in biological data was recognized by staff of the Western Australian Wildlife Research Centre, and led to successful applications by S.D. Hopper for funds for botanical survey work from the Australian Biological Resources Study and from the Western Australian Government. Consultancies arising from these grants were awarded to us to undertake appropriate surveys.

The specific aims of this study were to:

- a) list all taxa recorded by us during four surveys carried out since 1980;
- b) assess the frequency and cover/abundance of each taxon on each landform;
- c) assess the distribution of each taxon within southern Western Australia;
- d) assess the conservation status of each taxon (re-assessing the conservation values for those taxa listed by Marchant and Keighery 1979, Leigh *et al.* 1981, Leigh *et al.* 1984, Rye and Hopper 1981, Patrick and Hopper 1982, Rye 1982);
- e) assess the status of plants recorded by us from the Frank Hann National Park (KRN), Peak Charles National Park (KRN) and conservation reserves within the study area (MAB);
- f) list those taxa considered to be rare or geographically restricted, for gazettal as rare flora;
- g) assess the completeness of our flora list and the extent of invasion of exotic taxa;
- h) present a life form spectrum for the taxa collected.

Biophysical Environment

Climate

The climate may be described as semi-arid Mediterranean (Specht and Moll 1983), with most of the rain falling between May and October. The climate at Salmon Gums in the north of the study area is only weakly Mediterranean and tends towards non-seasonality (Beard 1973a,b). As there are no daily recording meteorological stations within the study area, the spatial and temporal rainfall patterns are poorly known. Average annual and monthly rainfall, and maximum and minimum temperatures for nearby stations at Lake King, Grass Patch, Salmon Gums, Esperance, Balladonia and Ravensthorpe are provided by Hall *et al.* (1981) and Newbey (1983a). Estimated average annual rainfall varies from 670 mm near the southern coast to 300 mm inland. Snow is a rare event (one year in 20) and a few days each summer exceed 40°C.

Geology

Bedrock of Archaean granite underlies the study area, but it is largely covered by soil. The tectonically stable bedrock was eroded into a series of subdued uplands dissected by broad, saucer-shaped valleys. Most of the valleys drained to the south coast but a few on the north-eastern section of the study area drained east and north to the Nullarbor Plain (Van de Graaff *et al.* 1977). During the Cretaceous, rainfall declined and the valleys were reduced to a string of salt lakes. A marine transgression during the Eocene filled river valleys with sediments (spongolite), and most of the land surface was eroded flat (Cockbain 1968). With the fall in sea level to the present, rivers in the western half of the study area (the Young, Lort and Oldfield Rivers) have eroded the spongolite back to

bedrock. Granite exposures represent later intrusions of Proterozoic granite through the Archaean bedrock. They have since been eroded into rounded hills conspicuous on the marine plain (Morgan and Peers 1973; Thom *et al.* 1977).

Landforms and soils

Landform classification follows the system devised by K.R. Newbey and A.V. Milewski for the biological survey of the eastern goldfields of Western Australia (Newbey 1984). Each landform with its associated soils is described below. Soils weathered *in situ* from the granitoid basement are slightly acidic and often highly leached. Soils of the marine plain have a high CaCO_3 content, due to deposition of salts leached from the uplands. Aeolian and alluvial soils are associated with valley bottoms and salt lakes. Acolian soil sheets, some with fossil dunes, are present on some sections of the marine plain.

Breakaway (B): In a few places in the study area, the underlying kaolinized granite is exposed on the ancient land surface. A breakaway consists of the following elements: rim, free face, scree slope, and pediment. The summit and rim consist of material more resistant to weathering than the underlying material and this controls the breakaway morphology. Shallow to skeletal gritty sands cover the summit and fill small pockets on the rim. Bedrock fragments in skeletal gritty sands cover the scree slopes. The pediment consists of finer material washed off the other elements. Soil drainage is excessive on the summit, rim, free face and scree slopes. However, the pediment obtains additional moisture from run-off from these elements. Soil pH is generally 6.0-6.5.

Drainage Line (D): This landform is confined to the Pyramid Lake District and occurs along the upper reaches of the Lort, Young and Oldfield Rivers. These saline watercourses, with ephemeral flows, drain to the south coast. Drainage lines dissect the sandplains and their common boundary is where the river banks change from erosional to depositional (colluvial). This varies from 2 to 10 metres above the river bed. Soils are colluvial, or alluvial on narrow river flats. They are usually sandy, and saline within a few metres of the river channel. Soil pH is generally 6.0-6.5.

Flat Plain (F1 and F2): Most of the study area east of Pyramid Lake consists of plain levelled by the Eocene Sea (see Marine Plain below) with an internal relief that rarely exceeds 5 m. A wide range of soils are present which can be divided into two relatively distinctive groups having unique vegetation and floristics (F1 and F2). Both may contain small freshwater swamps up to 250 m across that fill to a depth of 1 m only after very heavy rain.

F1 consists of nutrient poor and slightly acidic sands and sandy gravels. They are duplex soils with a sandy clay B horizon that is usually slightly to highly calcareous but occasionally slightly acidic. Fossil aeolian sand sheets, sometimes with dune relicts, are present in some areas.

F2 consists of loams to clays with significantly higher nutrient levels than F1 soils. The profile is calcareous to highly calcareous throughout with a clay loam B horizon often with a higher pH than the A horizon. Carbonate nodules are often present in the B horizon.

Granite Exposure (G): This landform is most common in the Mt Beaumont district of the study area and it is present in two phases related to the origin of the rock. Most common are the Proterozoic granite intrusions now present as rounded hills. Exposures of granite bedrock are less common, but both phases support similar vegetation on similar landform elements. Skeletal soil sheets may be present on the exposures and small hollows may contain ephemeral pools. Surrounding the exposure is an inner apron of soil less than 50 cm deep. Peripheral to this is an outer apron of soil 50-150 cm deep.

Sometimes, seepage occurs where soil has accumulated in faint drainage lines on the exposure. Soil pH is generally 6.0-6.5.

Salt Lake Features (L): Lakes in the study area have two origins. Some lakes occur on flat bottoms of paleo-drainage lines, interspersed with lunettes and saline flats. Lunettes range in composition from quartz rich sands to gypseous clays or nearly pure gypsum (Bowler 1982). The second type of lakes are linear, being separated by almost parallel vegetated sand dunes. Both types consist of lake floors and margins partially enclosed by peripheral dunes composed of sand or clay loam. Pure quartz dunes are formed under lake-full conditions, and the others by deflation of the adjacent lakes. Peripheral soils vary from saline to sub-saline and the pH may vary from highly acidic to highly alkaline. Lake floors are often devoid of vegetation.

Marine Plain (M): Surrounding Boyatup Hill is a marine plain covered by up to 2 m of fine siliceous sand. Below the sand is a B horizon of clay loam to 1 m thick that grades into spongolite bedrock. This plain differs from Flat Plain in having a slightly acidic B horizon and the extensive deep cover of sand. It is also in a higher rainfall zone.

Sandplain (S): Overlying the granite bedrock west of Pyramid Lake is an ancient landscape with a highly leached and slightly acidic soil profile. Slopes on the plain are gentle and internal relief is less than 30 m. The soil B horizon consists of sandy clay that is often mottled near its upper surface. The A horizon may consist of sand, sandy loam, clayey sand or clay loam. In some places the sand is present as colluvial sheets up to 1.5 m thick. Clay loams are usually associated with gilgai in localised areas.

Vegetation

Beard (1973a,b) mapped the main vegetation types of the study area using a structural classification with floristic sub-units. Monk *et al.* (1979) described the vegetation of the Frank Hann National Park, and Bennett (1983) outlined many vegetation types at Mt Beaumont, adjoining one of the areas recently released for agriculture in the study area.

The landform types described above support characteristic structural vegetation types. Breakaways have a complex of shrubs and annuals on skeletal soils, and mallees and trees are sometimes present. Drainage lines support a variety of vegetation, related to water logging and salinity of soils, from dwarf shrubland, to thicket and woodland. Similarly, salt lake floors are often bare, fringed by low halophytic shrubs. Tall shrubs are present on better drained soils, while mallees occur on soils with low salt content. Vegetation on Granite Exposures is also variable, related to soil depth and water run-off.

Flat Plains (F1) and Marine Plains have vegetation dominated by shrubs and sedges less than 1 m tall, although scattered tall shrubs and mallees are sometimes present. Flat Plains (F2) support denser mallee with fewer shrubs, and small patches of low woodland on highly calcareous soils. Scattered to dense mallees cover most of the Sandplains. In all mallee communities, the low and medium shrub strata tend to be more dense where the mallee cover is lower or more sparse. Woodlands are present on soils with higher nutrient status and numerous, small, ephemeral swamps support open woodlands.

Flora

No comprehensive plant collections were made in, or near, the study area until Newbey (1979) collected widely on the central south coast around the Fitzgerald River. More recently, Clements and George (1980) led an expedition which collected extensively for orchids. Ecological studies have

also been rare (Beard 1967, Hopper and Moran 1981, Hopkins and Robinson 1981, Crook and Burbidge 1982).

Methods

The flora list includes all plant taxa recorded by us mainly during four surveys:

- 1) a short preliminary survey was undertaken by KRN in November 1980 to overview the flora;
- 2) searches were made by KRN in the summer of 1982-83 for rare plants (Newbey 1983b);
- 3) basic data were recorded in October 1983 by KRN for a land use survey of the North Boyatup Hill area (Newbey unpublished data);
- 4) fourteen trips were undertaken in 1983 and 1984 by MAB to record as much as possible of the flora (Burgman 1985a).

Species lists were compiled at more than 300 sites subjectively selected to represent all of the main vegetation types of the study area. Opportunistic collections were made between sites and searches were made of unusual landforms. Data on each taxon were collected using classification schemes to record frequency and cover/abundance (Newbey and Hnatiuk 1984), life form (Newbey 1979), conservation status (Leigh *et al.* 1981) and representation on reserves (Ryc and Hopper 1981).

No detailed searches were made for plants considered to be rare. Rather estimates of rarity were made on known population sizes and distributions, and on our general knowledge of the study area. Previous publications on rare plants in Western Australia (see above) have been restricted to published taxa. We have included undescribed taxa, referenced by voucher collections in the Western Australian Herbarium (PERTH). The representation of taxa on reserves was restricted to Frank Hann and Peak Charles National Parks, and to flora conservation reserves in the study area. Cape Arid National Park adjoins the study area in the east, and Cape Le Grand and Stokes Inlet National Parks are to the south. The floras of these areas have not been documented and to do so was beyond the scope of this study.

Results and Discussion

A total of about 4000 plant specimens were collected in the study area as part of the four surveys. From these, 1351 different vascular plant taxa were identified (Appendix 1) which represent approximately 15% of the State's named flora (Green 1985). Plant taxa in the study area consisted of five species of ferns and fern allies, and 1290 species, 24 subspecies and 32 varieties of flowering plants. Families with the most taxa were the Myrtaceae (231 taxa), Proteaceae (106 taxa), Mimosaceae (105 taxa), Asteraceae (75 taxa) and Epacridaceae (62 taxa). The genera with the most taxa were *Acacia* (105 taxa), *Eucalyptus* (77 taxa), *Melaleuca* (67 taxa), *Leucopogon* (37 taxa), *Grevillea* (28 taxa), *Hibbertia* (21 taxa) and *Pultenaea* (19 taxa).

Life form spectrum

One of the most notable features of the species list was the predominance of dwarf shrub species, which make up 35% of the total taxa (Table 1). Kwongan (dwarf shrubland) is the richest and most complex vegetation type in the study area (Burgman 1985a) and contributes greatly to its species richness. Eucalypts are dominated by mallee-form species. Mature mallee is the most extensive vegetation type, although it is relatively poor in numbers of species (Burgman 1985a). Only a few fire ephemerals were present in recently burnt mallee and kwongan vegetation.

Table 1. Proportion of taxa (%) in Appendix 1 contributing to different life forms (including data from Newbey 1979 and Raunkiaer 1934). A key to the life form codes is provided in Appendix 1. + = less than 1%

P												CH		H					G		T		P
MM			M			N						CH		H					G		T		P
ST	MT	LT	DT	TS	MA	DS	SS	MS	LS	HP	CL	MP	RP	PG	SC	SI	SL	AB	HY	AG	AS	PC	
1	+	-	1	3	4	35	13	8	2	2	1	2	1	2	1	5	2	5	+	1	10	+	
70												2	11					5	11		0		
This Study																							
+	+	+	1	4	2	27	17	6	4	1	1	3	3	2	3	6	2	6	+	1	10	1	
63												3	16					6	11		1		
Newbey (1979)																							
46												9	26					6	13		0		
Raunkiaer (1934)																							

Phanerophytes are strongly represented in the life form spectrum, compared to the data of Raunkiaer (1934), at the expense mainly of chamaephytes and hemicryptophytes. This is also true when compared to Newbey’s (1979) central south coastal flora, and reflects the large contribution made by dwarf shrubs to the species richness of the study area.

Undescribed taxa

An important feature of the species list is the large number of undescribed taxa. Some 266 (20%) of the total are undescribed, in manuscript, or of uncertain status. A few taxonomic groups are outstanding for the number of undescribed taxa in them, notably *Lepidosperma* (4 taxa out of a total of 16), Rhamnaceae (7/20), *Hibbertia* (11/21), and *Melaleuca* (28/67). Additionally, a few genera are currently under revision, including *Acacia* (38/105), *Darwinia* (9/11), *Eucalyptus* (23/77) and *Leucopogon* (21/37). Recent revisions of genera in Western Australia have highlighted that most undescribed taxa are rare or have restricted geographic ranges (e.g. George 1981). The same appears likely to be true of many unnamed taxa recorded in the study area.

Biogeographic relationships

There are 44 exotic species listed in Appendix 1 (3% of the total), including 15 species from the Poaceae and 9 from the Asteraceae. This differs from the 494 taxa collected by Cheal *et al.* (1979) in which 10% of the mallee vegetation of north-western Victoria were exotic. However, Specht (1972) found that, like the study area, the incidence of introduced plants was rare in the South Australian mallee.

The low number of exotics in Appendix 1 is evidence of the low level of invasion of introduced plants in the study area. *Hypochaeris glabra* was ubiquitous, though rarely abundant. Most others were annual grasses or short-lived perennials. Usually, they were restricted to disturbed sites, or to salt lakes or granite rocks, probably responding to the more mesic micro-climates or higher nutrient status of these habitats.

Of the taxa in Appendix 1, 275 (20%) are also found in South Australia. Of these, 123 (9%) have disjunct and apparently vicariant distributions across southern Australia (Jessop 1984). The close relationship between the floras of South Australia and Western Australia is well known (Green 1964, Beard 1969, Parsons 1970, Nelson 1974), and is reflected in these figures.

As many as 10% of the taxa collected here are endemic to the study area and a further 9% are restricted to the Roc Botanical District. The flora of the study area bears strongest relationship to the South-West Botanical Province, with 32% of the taxa also occurring there. The relationship between the study area and the south coastal Eyre Botanical District is also strong, with 21% of the taxa shared; relatively fewer plants (13%) are shared with the more arid Coolgardie Botanical District.

Conservation values

Some 149 taxa (11%) were considered to be rare, geographically restricted or very poorly known and only 50 of these were listed by any one of the authorities on rare plants in Western Australia (see above). There were 266 taxa (20%) considered to be good taxonomic species which could not be matched with any named species. While they may be species new to science, their status is uncertain and will remain so until the taxa to which they appear to belong are revised.

Seven species in Appendix 1 have been gazetted as rare (Government of Western Australia 1988). They are *Adenanthos ileticos*, *Billardiera mollis*, *Eremophila denticulata*, *E. serpens*, *Eucalyptus merrickiae*, *Kennedia beckxiana* and *Ricinocarpus trichophorus*.

There are 38 taxa in Appendix 1 considered to be endangered and 45 taxa considered to be vulnerable. In order to highlight them, they are listed separately in Appendix 2. Endangered species require immediate survey and implementation of conservation measures, and species classified as vulnerable will need the same attention should land be considered for release for development. Most endangered taxa are recently described or undescribed. Only five of them have been listed by any one of the authorities on rare plants. These omissions are a result of the rarity of the taxa and their uncertain taxonomic status, which highlights the need for more effort to be spent on surveying rare plants.

Of the 98 taxa in Appendix 1 also listed in the existing publications on Western Australian rare plants, 50 were considered here to be relatively widespread or abundant. Examples of this kind are *Callitris columellaris*, *Bossiaea leptacantha* and *Oxylobium microphyllum*.

Of the 1351 taxa in Appendix 1, 59% are known to occur on conservation reserves or national parks but only 17% are known to be adequately represented (Rye and Hopper 1981). There are only five endangered species known on reserves, one of which is adequately represented. Similarly, there are only 23 vulnerable species known on reserves, two of which are adequately represented. A further 35 rare or poorly known species have been recorded on reserves.

Factors other than distribution and abundance contribute to the biological importance of collections. Range extensions in such species as *Acacia warramaba* may represent a paucity of collections

whereas in others such as *Acacia sorophylla*, they represent isolated populations. They may represent populations of species previously widespread in the wheatbelt (e.g. *Comesperma acerosum*, *Dampiera carinata*, *Goodenia trichophylla*), or forms, varieties or subspecies new to science (Burgman 1985b).

Conclusions

It is important to emphasise that Appendices 1 and 2 are incomplete. As many as 266 taxa are of uncertain status and it is anticipated that a significant proportion of these will be new, rare or restricted. Furthermore, by comparing Appendix 1 with other lists from nearby areas, we estimate that 15-20% of the flora of the study area remains to be collected. Clearly, a great many more records of rare or undescribed taxa remain to be made.

The study area exhibits a high degree of endemism, a large proportion of the flora is not known to occur on reserves and less than 20% is known to be adequately represented. Furthermore, very little is known of the biogeography of the study area and information of this nature will have important implications for the design of nature reserves. These factors suggest that very detailed studies are necessary, before land is released for development, if the flora is to be conserved.

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Appendix 1. Flora list

Arrangement of taxa follows Green (1985). Taxa listed below but not appearing in Green (1985) are: *Brizula muelleri*, *Eucalyptus scyphocalyx*, *Glyceria fluitans*, *Grevillea coccinea* and *Westringia rigida*. Data listed are life form, representation on conservation reserves, assessment of frequency and cover/abundance on landforms, and distribution. Voucher specimens of most taxa have been deposited in PERTH. Unnamed taxa are referenced by MAB or KRN collecting numbers. An asterisk indicates an introduced taxon.

LF = Life Form (Newbey 1979)

A. PHANEROPHYTES	Symbol P	
Mesophanerophytes (trees 5-50 m high)	MM	
1. Small trees (5-15 m)		ST
2. Medium trees (15-30 m)		MT
3. Large trees (greater than 30 m)		LT
Microphanerophytes (trees and shrubs 2-5 m high)	M	
4. Dwarf trees (less than 5 m)		DT
5. Tall shrubs (greater than 2 m)		TS
6. Mallees - tree form		MAT
shrub form		MAS
Nanophanerophytes (shrubs less than 2 m high)	N	
7. Dwarf woody shrubs (less than 0.5 m)		DS
8. Small woody shrubs (0.5-1 m)		SS
9. Medium woody shrubs (1-1.5 m)		MS
10. Large woody shrubs (1.5-2 m)		LS
11. Herbaceous shrubs		HP
12. Climbers		CL
B. CHAMAEPHYTES	CH	
13. Mat plants		MP
C. HEMICRYPTOPHYTES	H	
14. Rosetted perennials		RP
15. Perennial grasses		PG
16. Colonial sedges		SC
17. Tufted sedges		SI
18. Sedge-like plants		SL
D. GEOPHYTES	G	
19. Terrestrials		AB
20. Hydrophytes		HY
E. THEROPHYTES	T	
21. Annual grasses		AG
22. Other annuals		AS
F. PARASITIC CLIMBERS	P	
23. Parasitic climbers		PC

Appendix 1 (continued). Flora list

RES = Presence on conservation reserve

F	=	Frank Hann National Park (Newbey unpublished data)
P	=	Peak Charles National Park (Newbey unpublished data)
S	=	Nature reserves within study area (Burgman 1985a)
Assessment		
.	=	not recorded
P	=	present, inadequate representation (<1000 mature plants)
A	=	adequate representation (>1000 mature plants)

CS = Conservation status (based on code developed by Leigh *et al.* (1981) but applied by Burgman and Newbey)

1	=	taxa known only from type collection, or a single collection.
2	=	very restricted distribution, range <100 km.
3	=	taxa with distribution >100 km but occurring only in small populations.
E	=	endangered taxon in serious risk of disappearing from the wild state within one or two decades if present land use and other causal factors continue to operate.
V	=	vulnerable taxon not presently endangered but at risk over a longer period.
R	=	rare taxon not currently considered endangered or vulnerable.
K	=	poorly known taxon suspected to belong to one of the above categories.
C	=	present within national park or other proclaimed conservation area.

LANDFORM

B	=	Breakaway
D	=	Drainage line
F1	=	Plain (mainly sandy A horizon, neutral B horizon)
F2	=	Plain (various A horizon, calcareous B horizon)
G	=	Granite exposure
L	=	Salt lake feature
M	=	Marine plain
S	=	Sandplain

Frequency and Cover/abundance (canopy cover - see Muir (1977))

Frequency			Cover/abundance		
A	=	1 or 2 populations	1	=	1 or 2 plants
B	=	Few populations	2	=	Few plants
C	=	Scattered populations	3	=	Few plants to 1% canopy cover
D	=	Frequent populations	4	=	1-5% canopy cover
E	=	Common populations	5	=	6-30% canopy cover
			6	=	31-70% canopy cover

DIS = Distribution (Unnamed taxa assumed restricted to Western Australia)

1	=	Endemic to study area
2	=	Roe Botanical District (Beard 1980)
3	=	Eyre Botanical District
4	=	South-West Botanical Province (excluding Eyre Botanical District)
5	=	South-Western Interzone (Coolgardie Botanical District)
6	=	Southern Australia (mainly South Australia (Jessop 1984))
7	=	Naturalised aliens

Appendix 1 (continued). Flora List

LF	RES		LANDFORM										DIS
	FPS	CS	B	D	F1	F2	G	L	M	S			
PTERIDOPHYTA													
4	ISOETACEAE												
HY	Isoetes australis S. Williams	...	..	..	C2	..	..	..	..	..	..	2,5
7	ADIANTACEAE												
DS	Cheilanthes austrotenuifolia H. Quirk & T.C. Chambers	.AA	..	C3	..	..	..	C3	..	..	..	6
DS	Cheilanthes distans (R. Br.)Mett.	.A.	..	..	..	..	..	A1	..	..	..	6
11E	ASPENIACEAE												
DS	Asplenium flabellifolium Cav.	..P	..	..	..	..	..	B2	..	..	..	6
DS	Pleurosorus rutifolius (R. Br.)Fee	.PP	..	..	..	..	..	B2	..	..	..	6
16A	ZAMIACEAE												
SS	Macrozamia riedlei (Fischer ex Gaudich.)C. Gardner	...	..	..	..	..	..	A3	..	..	..	4
GYMNOSPERMAE													
17A	PINACEAE												
ST	*Pinus pinea L.	..P	..	..	..	..	..	A1	..	..	..	7
18	CUPRESSACEAE												
DT	Callitris columellaris F. Muell.	...	..	..	..	..	..	A2	..	..	..	6
TS	Callitris preissii Miq. ssp. verrucosa (Cunn. ex Vogel)J. Garden	AAA	..	..	..	C2	..	..	..	..	C4	6
TS	Callitris roei (Endl.)F. Muell.	P.A	..	..	..	..	..	..	..	..	A1	4
MONOCOTYLEDONAE													
26	JUNCAGINACEAE												
AS	Triglochin calcarata Hook.	..P	..	..	..	..	..	..	..	D4	..	6
AS	Triglochin minutissima F. Muell.	...	..	..	..	..	..	..	..	D4	..	4
AS	Triglochin mucronata R. Br.	..P	..	..	..	..	..	..	..	C3	..	6
AS	Triglochin muelleri Buchenau	...	3K	..	..	..	..	..	..	B2	..	6
31	POACEAE												
AG	Agrostis sp. A (MAB 2417)	...	..	..	..	..	..	..	A2	..	..	1
AG	*Aira cupaniana Guss.	AA.	..	B3	B3	..	B2	C3	..	..	..	7
PG	Amphipogon amphipogonoides (Steudel)Vick.	..P	..	..	..	..	..	..	..	..	B2	4
PG	Amphipogon turbinatus R. Br.	APP	..	..	..	..	..	..	..	..	B2	4
PG	Amphipogon sp. A (MAB 3909)	...	..	..	..	..	..	..	..	..	..	4
PG	Aristida contorta F. Muell.	..P	..	..	..	..	..	..	B4	..	..	6
AG	*Avellinia michelii (Savi)Parl.	..P	..	..	..	..	..	..	C2	..	..	7
AG	*Briza minor L.	..P	..	..	..	..	..	..	B2	..	..	7
AG	*Bromus rubens L.	..P	..	..	..	..	..	..	B2	..	..	7
PG	Danthonia caespitosa Gaudich.	.PA	..	..	..	..	..	..	B2	..	..	6
PG	Danthonia occidentalis Vick.	..P	..	..	..	..	..	..	B2	..	..	4
PG	Danthonia setacea R. Br. var. setacea	A.A	..	..	..	..	..	..	B2	D2	..	6
PG	Danthonia setacea R. Br. var. breviseta Vick.	...	..	..	..	..	..	..	..	C3	..	4
PG	Danthonia sp. A (MAB 2463)	...	..	..	..	..	..	A2	..	..	..	4
PG	*Ehrharta calycina Smith	..P	..	..	..	..	B2	..	..	..	..	7
PG	*Ehrharta longiflora Smith	..P	..	..	..	..	B2	..	..	..	..	7
PG	Eragrostis dielsii Pilger ex Diels & E. Pritzel	..P	..	..	..	..	..	B2	C2	..	..	6
AG	Glyceria fluitans R. Br.	...	2V	..	..	..	..	..	A1	..	..	1
AG	*Hordeum leporinum Link	...	..	..	..	..	..	..	B2	..	..	7
PG	*Lolium perenne L. (L. ? x L. rigidum Gaudin)	...	..	..	..	..	..	A2	..	..	..	7
AG	*Lolium rigidum Gaudin	...	..	..	..	..	..	B3	..	..	..	7
PG	Neurachne alopecuroides R. Br.	APA	..	..	..	..	..	..	..	C3	C2	6
AG	*Parapholis incurva (L.)C.E. Hubb.	..P	..	..	..	..	..	..	B2	..	..	7
PG	Paspalidium gracile (R. Br.)Hughes	...	..	..	..	..	..	A1	..	..	..	6
AG	*Pentastichis airoides (Nees)Stapf	AAA	..	..	C2	..	..	C3	B3	..	..	7
PG	Poa drummondiana Nees	.PP	..	..	A1	..	..	..	..	..	..	6
PG	Poa sp. A (MAB 4533)	..P	..	..	..	A1	..	..	..	..	..	2
AG	Puccinellia stricta (J.D. Hook.)C. Blom	..P	..	..	..	A2	..	..	..	..	..	6
PG	Spartochloa scirpoidea (Steudel)C.E. Hubb.	PAA	..	..	..	..	..	D4	..	..	..	2,5
PG	Stipa acrociliata Reader	...	..	..	..	..	..	A2	..	..	..	2,5
PG	Stipa compressa R. Br.	..P	..	..	..	..	..	..	..	B3	..	2,5
PG	Stipa elegantissima Labill.	..P	..	..	..	..	..	B1	C1	..	..	6
PG	Stipa eremophila Reader	..P	..	..	..	..	..	B2	..	..	..	6
PG	Stipa flavescens Labill.	...	..	..	..	..	..	B2	..	..	..	6
PG	Stipa hemipogon Benth.	..A	..	..	..	..	..	..	..	A1	B2	6
PG	Stipa juncifolia Hughes	..P	..	..	..	..	..	..	..	C3	..	2,5
PG	Stipa pycnostachya Benth.	...	..	..	..	..	..	B2	..	B3	..	2,5
PG	Stipa semibarbata R. Br.	...	..	..	..	..	..	A2	..	..	..	6
PG	Stipa trichophylla Benth.	...	..	..	..	..	..	B3	B2	..	..	6
PG	Stipa variabilis Hughes	..A	..	..	..	..	..	C3	..	..	..	6
PG	Stipa sp. A (MAB 3570)	...	..	..	..	..	..	A2	..	..	..	2

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
PG	<i>Stipa</i> sp. B (MAB 3086)	...	..	..	..	..	B2	..	..	..	..	2
PG	<i>Triodia concinna</i> N. Burb.	..P	3K	..	..	..	A5	..	..	..	..	5
AG	* <i>Trisetaria cristata</i> (L.)Kerguelen	..P	..	..	..	..	..	B2	..	..	..	7
AG	* <i>Vulpia bromoides</i> (L.)Gray	..P	..	..	..	..	..	C2	..	..	..	7
AG	* <i>Vulpia myuros</i> (L.)C. Gmelin	A.A	..	..	..	..	..	B2	D4	..	..	7
AG	* <i>Vulpia</i> sp. A (MAB 3223A)	...	..	..	..	..	..	B2	..	..	..	7
32 CYPERACEAE													
SC	<i>Baumea rubiginosa</i> (Sprengel)Boeckler.	..P	..	..	..	..	..	..	..	A3	..	6
SI	<i>Caustis dioica</i> R. Br.	PAA	..	..	..	E4	..	..	..	D3	..	4
SI	<i>Cyathochaeta avenacea</i> Benth.	...	..	..	..	..	..	..	..	B2	A2	4
SI	<i>Cyathochaeta clandestina</i> (R. Br.)Benth.	...	..	..	..	..	..	..	..	B2	..	4
SC	<i>Gahnia ancistrophylla</i> Benth.	AAA	..	..	..	D3	D4	B4	..	A2	B3	6
SC	<i>Gahnia australis</i> (Nees)K.L. Wilson	...	..	..	..	A2	..	..	..	B3	..	4
SI	<i>Gahnia decomposita</i> (R. Br.)Benth.	..P	..	..	..	..	..	..	..	B3	..	4
SI	<i>Gahnia deusta</i> (R. Br.)Benth.	..P	..	..	..	A3	..	..	..	..	..	6
SI	<i>Gahnia drummondii</i> (Steudel)K.L. Wilson	P.P	..	..	..	..	..	A3	..	..	..	4
SC	<i>Gahnia lanigera</i> (R. Br.)Benth.	P.P	..	..	..	..	..	B3	..	..	..	4
SI	<i>Gahnia</i> sp. A (MAB 4431)	..P	2K	..	..	..	..	..	..	A2	..	1
AS	<i>Isolepis congrua</i> Nees	..P	..	..	..	A1	..	..	C2	..	..	6
AS	<i>Isolepis marginata</i> (Thunb.)A. Dietr.	..P	..	..	..	A1	..	..	..	..	..	6
SI	<i>Isolepis nodosa</i> (Rottb.)R. Br.	...	..	..	..	..	..	..	..	A2	..	6
SI	<i>Isolepis</i> sp. A (MAB 1515)	...	2E	A2	..	..	..	A2	..	..	..	1
SI	<i>Lepidosperma aphyllum</i> R. Br.	...	..	..	..	..	..	..	..	C4	..	2,3
SC	<i>Lepidosperma brunonianum</i> Nees	AAA	..	..	..	B3	..	..	..	B3	A4	4
SI	<i>Lepidosperma carphoides</i> F. Muell. ex Benth.	P..	..	..	..	A1	..	..	..	C2	..	6
SI	<i>Lepidosperma drummondii</i> Benth.	AAA	..	..	..	C2	..	C2	..	C3	..	4,5
SI	<i>Lepidosperma gracile</i> R. Br.	..P	..	..	..	..	..	A2	..	..	..	4
SC	<i>Lepidosperma leptophyllum</i> Benth.	...	..	..	..	..	..	A4	..	..	..	2,3
SI	<i>Lepidosperma pruinatum</i> Kuek.	P.P	..	..	..	..	..	A4	..	C3	..	4,5
SI	<i>Lepidosperma resinosum</i> (Nees)Benth.	A.A	..	..	..	..	..	..	..	B3	..	4,5
SI	<i>Lepidosperma</i> aff. <i>resinosum</i> (Nees)Benth.												
	(KRN 5232)	APP	..	..	..	..	C3	B3	..	..	B4	4
SI	<i>Lepidosperma squamatum</i> Labill.	...	..	..	..	..	..	..	..	B2	..	4
SI	<i>Lepidosperma tuberculatum</i> Nees	PPP	..	..	..	..	..	..	..	..	B2	4
SI	<i>Lepidosperma viscidum</i> R. Br. var. <i>viscidum</i>	PAP	..	..	..	..	..	D4	..	B1	A3	6
SI	<i>Lepidosperma viscidum</i> R. Br. var. <i>flaccidum</i> Kuek.	...	..	..	..	..	..	..	..	..	A2	5
SI	<i>Lepidosperma</i> sp. A (MAB 1265)	..P	..	..	..	..	..	B2	..	..	..	1
SI	<i>Lepidosperma</i> sp. B (MAB 4371)	..P	3K	..	..	..	..	..	..	A2	..	1
SI	<i>Lepidosperma</i> sp. C (MAB 1298)	...	..	..	..	..	..	..	..	A2	..	1
SI	<i>Lepidosperma</i> sp. D (MAB 1138)	...	..	..	..	..	..	..	..	B2	..	1
SI	<i>Mesomelaena preissii</i> Nees	AAA	..	..	..	..	..	D3	..	..	D3	4,5
SI	<i>Mesomelaena stygia</i> (R. Br.)Nees ssp. <i>stygia</i>	A.P	..	..	..	..	..	D3	..	..	D4	2,3
SI	<i>Mesomelaena tetragona</i> (R. Br.)Benth.	..P	..	..	..	..	..	..	..	B4	C2	4
SI	<i>Mesomelaena</i> sp. A (MAB 3898)	...	..	..	..	..	..	B2	..	..	..	1
SI	<i>Schoenus armeria</i> Boeckler	P.P	..	..	..	..	..	..	..	C3	..	2
SI	<i>Schoenus asperocarpus</i> F. Muell.	..P	..	..	..	..	..	A4	..	..	..	2
SI	<i>Schoenus brevifolius</i> R. Br.	...	..	..	..	..	..	..	..	A3	..	4
SI	<i>Schoenus brevisetis</i> (R. Br.)Benth.	AAA	..	..	..	..	..	..	..	B3	B3	2,3
SI	<i>Schoenus caespitosus</i> W. Fitzg.	P.P	3RC	..	..	..	..	..	..	..	A1	2,3
SI	<i>Schoenus curvifolius</i> (R. Br.)Benth.	...	..	..	..	..	..	..	..	B2	..	2,3
SI	<i>Schoenus grammatophyllus</i> F. Muell.	...	..	..	..	..	..	..	..	B2	..	2,3
SI	<i>Schoenus laevigatus</i> W. Fitzg.	..P	..	..	..	..	..	A2	..	..	..	2,3
SI	<i>Schoenus</i> aff. <i>laevigatus</i> W. Fitzg. (KRN 3953)	P..	..	..	..	..	..	..	..	..	B2	2,5
AS	<i>Schoenus nanus</i> (Nees)Benth.	PPP	..	..	..	..	..	..	..	A2	A2	6
SI	<i>Schoenus obtusifolius</i> (Nees)Boeckler	...	..	..	..	..	..	..	..	..	A1	2,3
AS	<i>Schoenus odontocarpus</i> F. Muell.	...	..	..	..	..	..	..	..	B2	..	4
SI	<i>Schoenus pleiostemonus</i> F. Muell.	...	..	..	..	..	..	..	..	C3	B3	2,3
AS	<i>Schoenus sculptus</i> (Nees)Boeckler	..P	..	..	..	..	..	..	..	A2	..	6
SI	<i>Schoenus</i> aff. <i>subfascicularis</i> Kuek. (KRN 4744)	...	..	..	..	..	..	A3	..	..	..	2,3
SI	<i>Schoenus subflavus</i> Kuek.	PPP	..	..	..	..	..	..	..	..	B3	2,3
SI	<i>Schoenus sublaxus</i> Kuek.	...	..	..	..	..	..	..	..	C3	..	2
SI	<i>Schoenus</i> sp. A (MAB 2374)	...	3K	..	..	..	..	A2	..	..	..	1
SI	<i>Schoenus</i> sp. B (KRN 9787)	...	..	..	..	..	..	..	..	..	A1	2
SI	<i>Schoenus</i> sp. C (MAB 3608)	...	..	..	..	..	..	..	..	A2	..	1
SC	<i>Tetraria capillaris</i> (F. Muell.)J. Black	P..	..	..	..	..	..	..	..	A5	A2	6
SI	<i>Tetraria</i> aff. <i>microcarpa</i> S.T. Blake (KRN 8214)	...	..	..	..	..	..	A2	..	..	..	2,3
SI	<i>Tricostularia compressa</i> Nees	..P	..	..	..	..	..	..	..	C3	..	2,3
SI	<i>Tricostularia neesii</i> Lehm. var. <i>neesii</i>	P.P	..	..	..	..	..	..	..	C3	..	2,3
SI	<i>Tricostularia neesii</i> Lehm. var. <i>elatior</i> Benth.	...	..	..	..	..	..	..	..	A2	..	2,3
39 RESTIONACEAE													
SI	<i>Anarthria gracilis</i> R. Br.	..P	..	..	..	..	..	C2	..	..	..	2,3
SI	<i>Anarthria humilis</i> Nees	..A	..	..	..	..	..	C2	..	..	D3	2,3
SC	<i>Anarthria laevis</i> R. Br.	..P	..	..	..	..	..	..	..	D4	..	2,3
SI	<i>Anarthria prolifera</i> R. Br.	...	..	..	..	..	..	..	..	B2	..	2,3
SI	<i>Anarthria scabra</i> R. Br.	..P	..	..	..	..	..	..	..	B4	..	4
SC	<i>Harperia lateriflora</i> W. Fitzg.	...	..	..	..	..	..	..	..	D3	B3	4
SI	<i>Hypolaena exsulca</i> R. Br.	..P	..	..	..	..	..	A2	..	..	D3	4

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
SL	Conostylis androstemma F. Muell. ssp. argentea J.W. Green	A..	..	..	..	..	B2	..	..	..	B2	4
SL	Conostylis bealiana F. Muell.	..P	..	..	..	..	..	B2	..	C4	..	3
SL	Conostylis breviscapa R. Br.	...	..	..	..	..	A2	..	..	..	..	4
SL	Conostylis phathyrantha Diels	...	3R	..	..	..	..	..	..	..	C2	2,3
MP	Conostylis seorsiflora F. Muell.	..P	..	..	..	..	..	..	..	B1	..	3
SL	Conostylis vaginata Endl.	...	..	..	..	A2	..	..	..	..	..	3
SL	Conostylis sp. A (KRN 6572)	...	2E	..	..	..	..	..	..	..	C2	1
56A	HYPOXIDACEAE													
AB	Hypoxis sp. A (KRN 9759)	...	2V	..	..	..	..	B4	..	..	..	1
60	IRIDACEAE													
SL	Patersonia juncea Lindley	..P	..	..	..	..	..	..	..	B1	..	4
SL	Patersonia lanata R. Br.	...	..	..	..	..	..	..	..	B1	..	3
SL	Patersonia occidentalis R. Br.	..P	..	..	..	..	..	..	..	B1	..	6
SL	Patersonia rudis Endl. ssp. rudis	...	..	..	..	..	..	..	..	..	A1	4
66	ORCHIDACEAE													
AB	Acianthus reniformis (R. Br.)Schltr.	...	..	..	..	..	..	B2	..	..	..	6
AB	Caladenia caerulea R. Br.	..P	..	..	..	..	B2	..	..	..	..	4
AB	Caladenia deformis R. Br.	..P	..	..	..	..	C2	..	..	..	..	6
AB	Caladenia dilatata R. Br. var. falcata Nicholls	..P	..	..	..	..	..	B2	..	..	..	6
AB	Caladenia discoidea Lindley	...	..	..	..	..	C2	..	..	..	..	4
AB	Caladenia douthcae O. Sarg.	..P	..	..	..	..	D2	B2	..	..	..	4
AB	Caladenia filamentosa R. Br. var. denticulata (Lindley) H.G. Reichb.	...	..	..	..	..	..	B2	..	..	..	6
AB	Caladenia filamentosa R. Br. var. tentaculata R.S. Rogers	...	..	..	..	..	..	B2	..	..	..	6
AB	Caladenia flava R. Br.	..P	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia gemmata Lindley	..P	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia hirta Lindley	...	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia longicauda Lindley	..P	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia reptans Lindley	...	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia roei Benth.	..P	..	..	..	..	..	B2	..	..	..	4
AB	Caladenia saccharata H.G. Reichb.	...	..	..	..	..	..	B2	A2	..	..	4,5
AB	Caladenia sigmoidea R.S. Rogers	..P	..	..	..	..	..	A2	..	..	..	2,5
AB	Caladenia sp. A (MAB 3291)	...	..	..	..	..	..	B2	..	..	..	2
AB	Caladenia sp. B (MAB 3208)	..P	..	..	..	..	..	A2	..	..	..	2
AB	Diuris laxiflora Lindley	..P	..	..	..	..	..	A2	..	A1	..	4,5
AB	Diuris longifolia R. Br.	..PA	..	..	..	..	..	B2	..	..	..	6
AB	Elythranthera brunonis (Endl.)A.S. George	..P	..	..	..	..	..	B2	..	..	A1	4
AB	Eriochilus dilatatus Lindley	..P	..	..	..	..	..	C2	..	..	..	4
AB	Eriochilus scaber Lindley	..P	..	..	..	..	..	B2	..	..	..	4
AB	Leporella fimbriata (Lindley)A.S. George	..P	..	..	..	..	..	B2	..	..	..	6
AB	Lyperanthus nigricans R. Br.	..P	..	..	..	..	..	B2	..	A1	..	6
AB	Lyperanthus serratus Lindley	...	..	..	..	..	..	..	..	A1	..	4
AB	Microtis unifolia (G. Forster)H.G. Reichb.	..P	..	..	..	..	..	..	..	A3	..	6
AB	Paracaleana nigrita (Lindley)Blaxell ssp. nov. (MAB 3745)	...	..	..	..	..	B2	..	..	..	B1	3
AB	Prasophyllum fimbria H.G. Reichb.	...	..	..	..	..	..	..	..	..	A1	4
AB	Prasophyllum macrostachyum R. Br. var. rigens (H.G. Reichb.)A.S. George	...	..	..	..	..	..	C2	..	..	..	2,5
AB	Prasophyllum nigricans R. Br.	P.P	..	..	..	..	B2	..	..	..	..	6
AB	Prasophyllum ovale Lindley var. triglochin H.G. Reichb.	...	..	..	..	..	B2	..	..	..	..	4
AB	Pterostylis mutica R. Br.	..P	..	..	..	..	B2	..	..	..	..	6
AB	Pterostylis nana R. Br.	P.P	..	..	..	..	..	B2	..	..	..	6
AB	Pterostylis plumosa L. Cady	...	..	..	..	..	..	B2	..	..	..	6
AB	Pterostylis recurva Benth.	..P	..	..	..	..	B2	..	..	..	..	4
AB	Pterostylis aff. rufa R. Br. A (MAB 4463a)	..P	..	..	..	..	..	C2	..	..	..	2
AB	Pterostylis aff. rufa R. Br. B (MAB 3592)	...	..	..	..	..	..	B2	..	..	..	1
AB	Pterostylis aff. rufa R. Br. C (MAB 3554)	...	..	..	..	..	..	B2	..	..	..	1
AB	Pterostylis sargentii C.R.P. Andrews	P P	..	..	..	..	..	B2	..	A1	..	4
AB	Pterostylis vittata Lindley var. vittata	PPP	..	..	..	..	..	B2	..	..	..	6
AB	Thelymitra antennifera (Lindley)J.D. Hook.	...	..	..	..	..	..	B1	..	..	..	6
AB	Thelymitra campanulata Lindley	...	..	..	..	..	..	B2	..	..	..	4
AB	Thelymitra canaliculata R. Br.	...	..	..	..	..	..	B2	..	..	..	6
AB	Thelymitra crinita Lindley	..P	..	..	..	..	..	B1	..	..	..	4
AB	Thelymitra fuscolutea R. Br. var. fuscolutea	...	..	..	..	..	..	..	..	B1	..	6
AB	Thelymitra nuda R. Br.	PPA	..	..	..	..	..	B1	C1	..	..	6
AB	Thelymitra pauciflora R. Br.	...	..	..	..	..	..	B1	..	..	..	6

DICOTYLEDONAE

70	CASUARINACEAE												
SS	Allocasuarina acuarina (F. Muell.)L. Johnson	...	..	..	..	..	..	..	..	A2	..	2,3	
LS	Allocasuarina campestris (Diels)L. Johnson ssp. campestris	AAA	..	..	..	..	D5	..	..	C4	..	4	

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
			FPS	CS	B	D	F1	F2	C	L	M	S	
TS	Allocauarina corniculata (F. Muell.)L. Johnson	P.P	..	..	..	..	..	..	..	..	..	A4	4,5
TS	Allocauarina helmsii (Ewart & M. Gordon)												
	L. Johnson	.PP	..	..	..	..	B2	..	..	..	..	..	6
DT	Allocauarina huegeliana (Miq.)L. Johnson	PAP	..	..	..	..	D4	..	..	..	..	..	4,5
SS	Allocauarina humilis (Otto & Dietr.)L. Johnson	APA	..	..	..	..	..	..	..	C3	C3	..	4,5
DS	Allocauarina microstachya (Miq.)L. Johnson	APP	..	..	..	..	..	..	..	..	C2	..	4
MS	Allocauarina scleroclada (L. Johnson)L. Johnson	P..	..	..	..	..	..	..	A1	..	..	..	2,5
SS	Allocauarina thuyoides (Miq.)L. Johnson	APP	..	..	..	..	..	..	..	B2	D3	..	4
TS	Allocauarina trichodon (Miq.)L. Johnson	..P	..	..	..	..	..	..	..	A2	..	..	4
DT	Casuarina cristata Miq. ssp. pauper (F. Muell. ex Miq.)L. Johnson	..P	..	..	..	..	..	..	B2	..	..	..	6
90 PROTEACEAE													
DS	Adenanthos barbigerus Lindley	..P	..	..	..	..	..	..	..	B2	..	..	4
MS	Adenanthos cuneatus Labill.	P.A	..	..	..	..	..	..	..	B3	..	..	2,3
DS	Adenanthos glabrescens E.C. Nelson ssp. glabrescens	...	..	..	..	..	A2	..	..	B2	..	..	2,5
MS	Adenanthos ileticos E.C. Nelson	...	2E	..	..	B2	..	..	..	..	..	..	1
DS	Banksia blechnifolia F. Muell.	..P	3VC	..	..	B2	..	..	..	..	..	..	2
TS	Banksia elderiana F. Muell. & Tate	AAP	..	..	..	C4	..	..	..	..	C5	..	4,5
TS	Banksia media R. Br.	AAA	..	..	..	D5	C4	..	..	A2	D5	..	2,3
SS	Banksia nutans R. Br. var. nutans	...	..	..	..	..	..	..	..	B1	..	..	3
DS	Banksia petiolaris F. Muell.	..P	..	..	..	..	..	..	..	D3	C3	..	2,3
TS	Banksia pilostylis C. Gardner	..P	3VC	..	..	B4	..	..	..	D4	C3	..	2,3
SS	Banksia pulchella R. Br.	...	..	..	..	..	..	..	..	B3	..	..	2,3
DS	Banksia repens Labill.	..P	..	..	..	..	..	..	..	D3	..	..	2,3
TS	Banksia speciosa R. Br.	..P	..	..	..	..	..	..	..	B4	D5	..	3
SS	Banksia violacea C. Gardner	P.P	..	..	..	..	..	..	..	..	B2	..	4
DS	Conospermum distichum R. Br.	P.A	..	..	..	B3	..	..	..	..	..	..	4
DS	Conospermum floribundum Benth.	...	..	..	..	..	..	..	..	B3	..	..	4
SS	Conospermum leianthum E. Pritzal	P.P	..	..	..	B3	..	..	..	B2	..	..	2,3
MS	Conospermum teretifolium R. Br.	P.P	..	..	..	..	..	..	..	B1	..	..	2,3
DS	Dryandra armata R. Br.	..P	..	..	..	C4	..	..	..	B5	..	..	4
SS	Dryandra cirsioides Meissner	..P	..	..	..	C4	..	..	..	..	..	..	4
DS	Dryandra aff. cirsioides Meissner (MAB 1328)	A.P	..	..	..	B3	..	..	..	..	..	..	2
MS	Dryandra cuneata R. Br.	..P	..	..	..	B3	..	..	..	..	..	..	4
DS	Dryandra nivea (Labill.)R. Br.	..P	..	..	..	D3	..	..	..	A1	..	..	4
DS	Dryandra obtusa R. Br.	...	..	..	..	..	..	..	..	D3	..	..	3
DS	Dryandra aff. pteridifolia R. Br. (MAB 4593)	..P	3VC	..	..	A2	..	..	..	..	A2	..	2
DS	Dryandra tenuifolia R. Br.	..P	..	..	..	..	..	..	..	C3	..	..	2,3
SS	Franklandia fucifolia R. Br.	..P	..	..	..	C2	..	..	..	..	..	..	4
DS	Grevillea acuaris F. Muell. ex Benth.	AAP	..	..	..	..	..	..	C3	..	..	..	4,5
SS	Grevillea aneura McGillivray	P..	3VC	..	..	B2	..	..	..	B3	..	..	2
SS	Grevillea beardiana McGillivray	...	..	..	..	..	A2	..	..	..	..	..	2
TS	Grevillea cagiana McGillivray	AP.	..	..	..	B3	..	..	..	..	..	..	4,5
MS	Grevillea coccinea Meissner	PP.	..	..	..	A2	..	..	..	..	B2	..	2,3
MS	Grevillea didymobotrya Meissner ssp. didymobotrya	P P	..	..	..	..	..	..	..	..	B2	..	4,5
DS	Grevillea disjuncta F. Muell. ssp. disjuncta	..P	..	..	..	..	..	..	..	A2	..	..	2
MS	Grevillea endlicheriana Meissner	..P.	..	..	..	..	..	..	..	..	B3	..	4,5
TS	Grevillea eriostachya Lindley ssp. excelsior (Diels)McGillivray	PPP	..	..	..	..	..	..	..	..	D4	..	4,5
MS	Grevillea extorris S. Moore	P.P	..	..	..	..	..	..	A1	..	..	..	4,5
DS	Grevillea haplantha F. Muell. ex Benth.	P..	..	..	..	..	..	..	..	A2	..	..	2,3
SS	Grevillea huegelii Meissner	AAA	..	..	..	B3	D3	..	..	..	..	..	6
MS	Grevillea integrifolia (Endl.)Meissner ssp. incrassata (Diels)McGillivray	PP.	..	..	..	..	..	..	..	..	B4	..	2
MS	Grevillea integrifolia (Endl.)Meissner ssp. integrifolia	...	..	..	..	..	..	..	..	..	A2	..	4,5
MS	Grevillea integrifolia (Endl.)Meissner ssp. shuttleworthiana (Meissner)McGillivray	..P	..	..	..	..	..	..	..	..	A2	..	4,5
DS	Grevillea nudiflora Meissner	..P	..	..	..	..	..	..	..	..	A1	..	2,3
MS	Grevillea oligantha F. Muell.	..P	..	..	..	C2	..	..	..	..	..	..	2,5
MS	Grevillea oncogyne Diels	APP	..	..	..	B2	..	..	..	..	..	..	2,5
LS	Grevillea paniculata Meissner	...	..	..	..	..	C4	..	..	..	..	..	2,3
DS	Grevillea patentiloba F. Muell.	...	..	..	..	..	..	..	..	A2	..	..	2,3
MS	Grevillea pauciflora R. Br. ssp. pauciflora	AAA	..	..	..	B1	C2	C3	..	B2	C3	..	6
SS	Grevillea pectinata R. Br.	..AP	..	..	..	C2	C3	..	..	..	C3	..	2,3
MS	Grevillea aff. pectinata R. Br. (KRN 9784)	...	..	..	..	..	..	..	..	C3	..	..	2
MS	Grevillea plurijuga F. Muell.	..P	..	..	..	B2	..	..	..	..	..	..	2
MS	Grevillea teretifolia Meissner	PPP	..	..	..	..	..	..	..	..	C2	..	4,5
TS	Grevillea tetragonoloba Meissner	...	..	..	..	B2	..	..	..	..	..	..	2
DS	Grevillea aff. treueriana F. Muell. (MAB 2305)	...	..	..	..	..	C3	..	..	..	..	..	1
TS	Grevillea wittweri McGillivray	...	..	..	..	B2	..	..	..	..	..	..	2
TS	Hakea adnata R. Br.	..P	..	..	..	C3	A3	..	..	C1	..	..	2,3
DT	Hakea arida Diels	...	..	..	..	B2	..	..	..	..	..	..	2,5
LS	Hakea brooksiana F. Muell.	...	..	..	..	..	..	..	..	D3	..	..	2,3
MS	Hakea cinerea R. Br.	..P	..	..	..	B3	..	..	..	D3	..	..	2,3
MS	Hakea clavata Labill.	..P	..	..	..	..	..	..	D4	..	..	..	4,5
SS	Hakea commutata F. Muell.	P.P	..	..	..	B3	..	..	..	B2	..	..	4

Appendix 1 (continued). Flora List

LF		RES	CS	LANDFORM									DIS
		FPS		B	D	F1	F2	G	L	M	S		
MS	Hakea corymbosa R. Br.	PPP	..	..	..	D4	..	..	..	S3	C4	2,3
LS	Hakea crassifolia Meissner	P..	..	..	..	B3	..	..	..	..	B3	4
SS	Hakea aff. falcata R. Br. (KRN 5966)	A..	..	..	..	..	..	..	..	..	B5	4,5
DT	Hakea laurina R. Br.	PPA	..	..	..	B3	D5	..	B2	..	..	4
MS	Hakea lissocarpa R. Br.	APP	..	..	..	..	..	..	B2	A2	..	4
DS	Hakea marginata R. Br.	P.P	..	..	..	B2	..	..	..	..	..	4
DT	Hakea multilineata Meissner	PP.	..	..	..	B2	..	..	..	..	..	4
TS	Hakea nitida R. Br.	.P.	..	..	..	D2	..	..	B1	C2	..	2,5
TS	Hakea pandanica R. Br.	..P	..	..	..	..	..	..	B4	C3	..	3
TS	Hakea prostrata R. Br.	..P	..	..	..	..	..	..	B1	..	..	4
TS	Hakea rubriflora Lamont	..P	..	..	..	..	..	..	B2	..	..	2,3
MS	Hakea ruscifolia Labill.	...	..	..	..	..	..	..	A3	..	..	4
LS	Hakea subsulcata Meissner	...	..	..	..	..	..	..	A2	..	..	4
MS	Hakea trifurcata (Smith)R. Br.	..PP	..	..	..	C4	..	..	C3	D4	..	4
MS	Hakea varia R. Br.	..P	..	..	..	B3	..	..	B3	..	..	4
LS	Hakea sp. A (KRN 9766)	...	1E	..	..	A2	..	..	..	..	..	1
DS	Isopogon alpicornis Diels	..P	..	..	..	A2	..	..	..	..	..	2
DS	Isopogon attenuatus R. Br.	P.P	..	..	..	A2	..	..	D2	..	..	4
SS	Isopogon buxifolius R. Br.	P.A	..	..	..	E5	..	..	..	..	..	4
DS	Isopogon formosus R. Br.	..A	..	..	..	..	..	..	..	A2	..	2,3
MS	Isopogon polycephalus R. Br.	P.P	..	..	..	..	..	..	..	B2	..	2,3
DS	Isopogon teretifolius R. Br.	A.A	..	..	..	..	..	..	..	B2	..	4
DS	Isopogon tridens F. Muell.	..P	3V	..	..	E4	..	..	..	..	..	2
MS	Isopogon trilobus R. Br.	...	..	..	..	A2	..	..	C3	B3	..	2,3
MS	Isopogon tripartitus R. Br.	...	..	..	..	A2	..	..	C3	..	..	3
TS	Lambertia inermis R. Br.	..A	..	..	..	C4	..	..	D4	..	..	2,3
DS	Persoonia striata R. Br.	..P	..	..	..	C2	..	..	..	..	..	4,5
LS	Persoonia teretifolia R. Br.	..P	..	..	..	B2	..	..	..	..	..	4,5
DS	Persoonia tortifolia Meissner	...	2K	..	..	B2	..	..	..	..	..	4
DS	Persoonia sp. A (MAB 3392)	..PP	3RC	..	..	B2	..	..	..	..	..	2
SS	Petrophile divaricata R. Br.	...	..	..	..	C2	..	..	..	..	..	4
SS	Petrophile ericifolia R. Br. var. ericifolia	..P	..	..	..	A2	B2	..	..	..	..	4
SS	Petrophile aff. ericifolia R. Br. A (MAB 1325)	...	..	..	..	A2	..	..	..	..	..	1
SS	Petrophile aff. ericifolia R. Br. B (MAB 2910)	...	..	..	..	A2	..	..	..	..	..	1
SS	Petrophile fastigiata R. Br.	..P	..	..	..	B2	..	C2	..	..	..	3
MS	Petrophile heterophylla Lindley	...	..	..	..	C2	B2	..	..	..	..	4
DS	Petrophile phylloides R. Br.	...	..	..	..	..	..	..	..	2A	..	4
DS	Petrophile seminuda Lindley	P.P	..	..	..	C3	..	..	..	..	..	4
SS	Petrophile squamata R. Br.	..A	..	..	..	C2	..	..	C3	..	..	4
DS	Petrophile teretifolia R. Br.	..A	..	..	..	D3	C3	..	..	..	..	2,3
DS	Stirlingia tenuifolia (R. Br.)Steudel	PAA	..	..	..	D3	..	..	..	D3	..	2,3
DS	Synaphea favosa R. Br.	AAP	..	..	..	D4	..	..	..	C3	..	4
DS	Synaphea polymorpha R. Br.	...	..	..	..	C3	..	..	..	..	..	4
DS	Synaphea sp. A (MAB 1778)	...	..	..	..	B2	..	..	..	..	..	1
DS	Synaphea sp. B (KRN 3761)	...	..	..	..	..	..	..	A2	..	..	4
92	SANTALACEAE												
SS	Choretrum glomeratum R. Br. var. chrysanthum (F. Muell.)Benth.	...	..	..	..	..	..	..	..	A1	..	6
SS	Choretrum glomeratum R. Br. var glomeratum	..P	..	..	..	B2	B2	..	..	..	..	6
MS	Exocarpos aphyllus R. Br.	..P	..	..	..	..	C3	..	A1	..	..	6
TS	Exocarpos sparteus R. Br.	..P	..	..	..	..	C4	..	..	..	..	6
SS	Leptomeria pachyclada Diels	..P	..	..	..	B1	C3	..	A2	..	..	4
MS	Leptomeria preissiana (Miq.)A. DC.	APA	..	..	..	B1	C3	..	B2	B2	..	6
SS	Leptomeria scrobiculata R. Br.	B1	C2	..	B2	..	B3	A2	4
DS	Leptomeria spinosa (Miq.)A. DC.	..P	..	..	..	D3	..	A2	..	..	C2	4
DT	Santalum acuminatum (R. Br.)A. DC.	...	..	..	..	..	A2	B2	..	..	..	6
DT	Santalum murrayanum (Mitch.)C. Gardner	AAA	A2	B2	..	D3	..	C3	..	6
95	OLACACEAE												
DS	Olax benthamiana Miq.	PPP	..	..	..	..	C2	..	..	B3	..	4
DS	Olax sp. A (KRN 9799)	...	..	..	..	..	..	..	..	A1	..	1
97	LORANTHACEAE												
DT	Nuytsia floribunda (Labill.)R. Br. ex Fenzl	..P	..	..	..	C2	..	..	..	B2	C3	4
103	POLYGONACEAE												
DS	Muehlenbeckia adpressa (Labill.)Meissner	PPP	..	..	B2	..	..	B2	..	..	..	6
HP	*Rumex acetosella L.	...	..	..	A2	..	..	..	..	..	..	7
105	CHENOPODIACEAE												
DS	Atriplex lindleyi Moq. ssp. lindleyi	...	..	..	..	..	B2	..	C3	..	..	6
DS	Atriplex lindleyi Moq. ssp. inflata (F. Muell.) Paul G. Wilson	...	..	..	..	..	B2	..	C3	..	..	6
DS	Atriplex paludosa R. Br.	..P	..	..	..	..	..	..	C3	..	..	6
DS	Atriplex pumilio R. Br.	...	..	..	..	..	..	..	C3	..	..	6
AS	Atriplex spongiosa F. Muell.	PPP	..	..	..	..	A2	..	C3	..	..	6
DS	Atriplex vesicaria Heward ex Benth. ssp. variabilis Parr-Smith	AAA	..	..	..	B2	..	C3	..	B2	..	6

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
MP	Chenopodium desertorum (J. Black)J. Black ssp. microphyllum Paul G. Wilson	...	..	..	..	..	..	..	B3	..	..	6
DS	Enchylaena lanata Paul G. Wilson	PPP	..	..	B2	..	B2	..	B3	..	..	4
DS	Enchylaena tomentosa R. Br. var. tomentosa	PAA	..	..	C2	..	B2	B2	D4	..	..	6
AS	Eriochiton sclerolaenoides (F. Muell.)F. Muell. ex A.J. Scott	...	..	..	..	..	A1	..	..	..	..	6
DS	Halosarcia halocnemoides (Nees)Paul G. Wilson ssp. caudata Paul G. Wilson	...	..	..	..	..	..	..	D5	..	..	4,5
DS	Halosarcia halocnemoides (Nees)Paul G. Wilson ssp. halocnemoides	...	..	..	..	..	..	..	D5	..	..	6
SS	Halosarcia indica (Willd.)Paul G. Wilson ssp. bidens Paul G. Wilson	...	..	..	..	..	..	..	D4	..	..	6
DS	Halosarcia lepidosperma Paul G. Wilson	P.P	..	..	..	..	..	..	C4	..	..	6
DS	Halosarcia lylei (Ewart & J. White)Paul G. Wilson	P.A	..	..	..	..	..	C4	E5	..	..	6
DS	Halosarcia pergranulata (J. Black)Paul G. Wilson ssp. pergranulata	..P	..	..	..	..	..	..	D4	..	..	6
DS	Halosarcia pterygosperma (J. Black)Paul G. Wilson ssp. pterygosperma	P.P	..	..	..	..	..	..	D5	..	..	6
DS	Halosarcia syncarpa Paul G. Wilson	.AP	..	..	..	..	..	..	E5	..	..	6
DS	Maireana amoena (Diels)Paul G. Wilson	.AP	..	..	..	..	..	..	D4	..	..	5
DS	Maireana enchylaenoides (F. Muell.)Paul G. Wilson	P.P	..	..	..	..	..	..	D4	..	..	6
DS	Maireana erioclada (Benth.)Paul G. Wilson	..P	..	..	..	..	..	..	C3	..	..	6
DS	Maireana oppositifolia (F. Muell.)Paul G. Wilson	..P	..	..	..	..	..	..	C4	..	..	6
DS	Maireana trichoptera (J. Black)Paul G. Wilson	...	..	..	..	..	..	..	C4	..	..	6
DS	Rhagodia crassifolia R. Br.	.PP	..	..	..	..	..	..	C3	..	..	6
DS	Rhagodia drummondii Moq.	PPP	..	..	..	..	..	..	C3	..	..	6
MS	Rhagodia preissii Moq. ssp. preissii	PAP	..	..	..	..	B2	..	C3	..	..	6
DS	Sarcocornia quinqueflora (Bunge ex Ung.-Sternb.) A.J. Scott	..P	..	..	..	..	..	..	D3	..	..	6
DS	Sclerolaena patentiuspis (Anderson)Ulbr.	..P	..	..	..	..	..	..	D3	..	..	6
DS	Sclerolaena uniflora R. Br.	..A	..	..	..	..	..	..	D4	..	..	6
DS	Sclerostegia moniliformis Paul G. Wilson	..P	..	..	..	..	..	..	D3	..	..	4
DS	Suaeda australis (R. Br.)Moq.	...	..	..	..	..	A2	..	..	..	..	6
DS	Threlkeldia diffusa R. Br.	..A	..	..	..	..	..	..	E4	..	..	6
106	AMARANTHACEAE												
HP	Hemichroa diandra R. Br.	...	..	..	..	..	..	..	B2	..	..	6
HP	Ptilotus holosericeus (Moq.)F. Muell.	P..	..	..	..	..	B1	..	..	..	..	2,5
HP	Ptilotus spathulatus (R. Br.)Poiret	...	..	..	..	..	A2	A2	..	..	..	6
HP	Ptilotus sp. A (MAB 4484B)	..P	..	..	..	..	B3	..	..	..	..	1
108	GYROSTEMONACEAE												
DS	Cypselocarpus haloragoides (F. Muell. ex Benth.) F. Muell.	...	3VC	..	..	..	..	..	..	B2	..	3
SS	Gyrostemon ditrigynus A.S. George	...	2E	..	..	..	A3	..	..	..	..	2
MP	Gyrostemon prostratus A.S. George	...	3E	..	..	..	A2	..	..	..	..	2
SS	Gyrostemon ramulosus Desf.	...	..	..	..	..	C3	..	..	..	..	6
MS	Gyrostemon sheathii W. Fitzg.	...	..	..	..	..	..	..	A1	..	..	2,3
110	ALZOACEAE												
MP	*Carpobrotus edulis (L.)L. Bolus	...	..	..	..	..	A3	..	..	..	..	7
MP	Carpobrotus modestus S.T. Blake	PAP	..	C2	..	..	..	C3	D3	..	..	6
MP	Carpobrotus rossii (Haw.)Schwantes	PPP	..	..	..	..	..	B1	C2	..	..	6
MP	Disphyma crassifolium (L.)L. Bolus	.AA	..	..	..	..	..	..	D4	..	..	6
DS	Gunniopsis glabra (Ewart)C. Gardner	..P	..	..	..	..	..	..	A1	..	..	5
DS	Gunniopsis intermedia Diels	.P.	..	..	A1	..	..	..	..	..	..	5
111	PORTULACACEAE												
AS	Calandrinia calyptrata J.D. Hook.	PPP	..	..	..	..	..	D2	C2	..	..	6
AS	Calandrinia eremaea Ewart	..P	..	..	..	..	..	..	C2	..	..	6
AS	Calandrinia polyandra Benth.	..P	..	..	..	..	..	..	C2	..	..	6
AS	Calandrinia sp. A (MAB 2265)	...	..	..	..	..	..	A2	..	..	..	1
113	CARYOPHYLLACEAE												
AS	*Spergularia diandra Heldr. & Sart. ex Heldr.	...	..	..	..	..	..	..	C2	..	..	7
AS	*Spergularia rubra (L.)J.S. & C. Presl	..P	..	..	..	..	..	..	C2	..	..	7
131	LAURACEAE												
PC	Cassytha aurea J.Z. Weber	...	..	..	..	..	..	..	..	B2	..	4
PC	Cassytha glabella R. Br.	PAP	..	..	..	..	..	B1	..	B2	B2	6
PC	Cassytha melantha R. Br.	PAA	..	..	..	C1	D3	C2	..	B2	..	6
PC	Cassytha micrantha Meissner	...	3VC	..	..	..	..	..	..	A1	..	2,3
PC	Cassytha racemosa Nees	.P.	..	..	..	..	B1	B1	..	C2	B2	4
138	BRASSICACEAE												
AS	*Brassica tournefortii Gouan	...	..	..	..	..	..	B2	..	..	..	7
AS	*Brassica sp. A (MAB 2277)	...	..	..	..	A2	..	..	..	..	..	7
AS	*Hymenolobus procumbens (L.)Nutt. ex Schinz & Thell.	...	..	..	..	B2	..	..	..	..	..	7

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
HP	Lepidium rotundum (Desv.)DC.	P..	..	..	..	..	B2	..	..	..	..	6
AS	Menkea australis Lehm.	.P.	..	..	..	..	B2	..	..	..	..	6
AS	*Sisymbrium irio L.	...	..	..	..	..	A2	..	..	..	..	7
AS	Stenopetalum robustum Endl.	...	..	..	..	..	..	B2	..	..	..	4
143 DROSERACEAE													
AB	Drosera bulbosa Hook.	..P	..	..	..	..	B2	..	..	..	..	4
AS	Drosera glanduligera Lehm.	PPP	..	..	..	..	..	C2	..	..	..	6
AB	Drosera huegelii Endl.	...	..	..	..	..	..	..	A1	..	..	4
AB	Drosera leucoblasta Benth.	...	..	..	..	..	..	..	..	B2	..	4
AB	Drosera macrantha Endl.	APP	..	..	..	D2	..	D3	..	..	D3	4
AB	Drosera menziesii R. Br. ssp. menziesii	PPP	..	..	..	B2	..	..	..	B1	..	4
AB	Drosera neesii Lehm. ssp. neesii	...	..	..	..	..	..	A2	..	..	..	4
RP	Drosera paleacea DC.	..P	..	..	..	..	..	..	..	B2	..	4
RP	Drosera pycnoblata Diels	PP.	..	..	..	B2	..	..	..	..	..	4
AB	Drosera ramellosa Lehm.	..P	..	..	..	..	..	B2	..	..	..	4
AB	Drosera subhirtella Planchon ssp. moorei (Diels) N.G. Marchant	...	..	..	..	..	..	A2	..	..	..	2,5
AB	Drosera zonaria Planchon	P.P	..	..	..	B2	..	..	..	..	..	4
AB	Drosera sp. A. (MAB 3703)	.P.	3R	..	B2	..	..	..	..	..	..	2,5
149 CRASSULACEAE													
AS	Crassula colorata (Nees)Ostenf. var. colorata	..A	..	..	D3	..	..	D2	D3	..	..	6
AS	Crassula decumbens Thunb. var. decumbens	...	..	..	A2	..	..	B3	..	..	..	6
AS	Crassula exserta (Reader)Ostenf.	AAA	..	..	..	..	D2	..	..	..	..	6
HY	*Crassula natans Thunb. var. minus (Ecklon & Zeyher)Rowley	...	..	..	..	..	..	B3	..	..	..	7
AS	Crassula pedicellosa (F. Muell.)Ostenf.	.PP	..	..	..	..	..	B2	..	..	..	6
AS	Crassula sieberiana (Schultes & J.H. Schultes) Druce ssp. tetramera Toelken	...	..	..	..	..	..	B2	..	..	..	6
152 PITTOSPORACEAE													
CL	Billardiera bicolor (Putterl.)E.M. Bennett	.PP	..	..	..	..	..	B1	..	..	..	4
CL	Billardiera coriacea Benth.	PPP	..	..	..	..	..	B1	..	..	B1	4
CL	Billardiera lehmanniana F. Muell.	...	..	..	..	..	..	..	A1	..	..	4,5
SS	Billardiera mollis E.M. Bennett	...	2V	..	A1	..	..	..	..	..	A1	2,3
SS	Cheiranthra filifolia Turcz.	.PP	..	..	..	..	..	..	..	A1	..	4,5
DT	Pittosporum phylliraeoides DC. var. microcarpa S. Moore	PAP	..	..	..	..	..	..	A2	..	..	4,5
CL	Sollya heterophylla Lindley	PPP	..	..	..	..	..	B1	..	..	..	4
163 MIMOSACEAE													
DS	Acacia acanthoclada F. Muell.	P.P	..	..	..	B1	..	..	..	..	..	6
DT	Acacia acuminata Benth.	.AP	..	..	B4	B3	..	D5	..	..	..	4,5
MS	Acacia ancistrophylla C.R.P. Andrews	...	..	..	..	..	B3	..	..	..	A2	4
DS	Acacia andrewsii W. Fitzg.	PPP	..	..	..	B1	..	..	..	..	B2	4
TS	Acacia assimilis S. Moore	PAA	..	..	..	..	..	D5	..	..	..	4,5
DS	Acacia aff. bidentata Benth. A (MAB 1688)	P.P	..	..	..	..	A2	..	..	..	..	4
DS	Acacia aff. bidentata Benth. B (MAB 2496)	P.P	2VC	..	..	..	..	..	..	..	B1	1
SS	Acacia binata Maslin	P..	..	..	..	..	A2	..	..	..	..	2,3
DS	Acacia brachyphylla Benth.	...	..	..	..	..	..	..	..	..	A2	4
SS	Acacia camptoclada C.R.P. Andrews	AAA	..	..	..	B3	B3	..	..	..	..	2,5
DS	Acacia aff. camptoclada C.R.P. Andrews (MAB 1879)	...	..	..	..	..	A1	..	..	..	..	1
TS	Acacia chrysella Maiden & Blakely	P..	..	..	..	..	A2	..	..	..	..	4,5
DS	Acacia chrysocephala Maslin	..P	..	..	..	..	..	..	..	..	A1	4
DS	Acacia cochlearis (Labill.)H.L. Wendl.	...	..	..	..	..	..	..	..	..	B1	4
SS	Acacia aff. cochlearis (Labill.)H.L. Wendl. (KRN 9764)	...	2K	..	..	..	..	..	..	B2	..	3
DS	Acacia aff. congesta Benth. (MAB 1991)	...	..	..	..	..	..	..	..	..	A2	1
DT	Acacia conniana Maslin	...	..	..	..	..	..	B4	..	..	..	3
DS	Acacia congesta Benth.	...	..	..	..	..	..	..	..	..	A2	2,3
TS	Acacia crassiuscula Wendl.	...	..	..	..	..	..	A5	..	..	..	4
DS	Acacia crassuloides Maslin	PAP	3VC	..	..	..	B2	..	..	..	..	2,3
DS	Acacia curvata Maslin	..P	..	..	..	..	..	..	..	..	A3	2,3
TS	Acacia cyclops Cunn. ex Don	..P	..	..	..	..	..	..	..	B2	..	6
DS	Acacia delphina Maslin	...	..	..	..	B3	C3	..	..	..	..	2,3
DS	Acacia densiflora Morrison	P..	..	..	..	..	B3	..	..	..	..	4,5
DS	Acacia dermatophylla Benth.	...	..	..	..	B2	..	..	..	..	..	1
DS	Acacia aff. dermatophylla Benth. (MAB 1877)	P.P	..	..	..	..	C3	..	..	..	..	5
DS	Acacia diaphyllodinea Maslin	A.P	..	..	..	..	..	..	..	..	A3	2,3
MS	Acacia dielsii E. Pritzel	..P	..	..	..	..	..	..	..	..	B3	4
DS	Acacia erinacea Benth.	AAA	..	..	..	..	C4	..	..	..	B2	6
DS	Acacia excentrica Maiden & Blakely	...	3K	..	..	..	A2	..	..	..	..	2,5
DS	Acacia ferocior Maiden	..P	..	..	..	..	D4	..	..	..	..	4
SS	Acacia flavopila A.S. George	...	..	..	..	..	..	..	..	..	A2	4
TS	Acacia fragilis Maiden & Blakely	..P	..	..	..	A2	..	..	..	..	..	4,5
LS	Acacia aff. fragilis Maiden & Blakely (KRN 7972)	...	..	..	..	A1	..	..	..	..	..	2
SS	Acacia glaucoptera Benth.	..P	..	..	..	..	C3	..	..	..	..	4
SS	Acacia gonophylla Benth. var. gonophylla	..P	..	..	..	B2	..	..	..	A1	..	2,3

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	C	L	M	S		
DS	Acacia aff. gonophylla Benth. (MAB 1156)	..P	..	..	..	..	..	A2	..	..	..	1
DS	Acacia gonophylla Benth. var. crassifolia Benth.	.A.	..	..	..	..	B2	..	..	B2	..	2,3
LS	Acacia hakeoides Cunn. ex Benth.	...	..	..	..	..	A2	..	..	..	..	4,5
MS	Acacia hemiteles Benth.	P..	..	..	..	..	B3	..	..	..	..	4,5
SS	Acacia ixiophylla Benth.	PA.	..	..	..	..	B3	..	..	..	..	4,5
DS	Acacia lachnophylla F. Muell.	PAP	..	..	..	..	B3	..	..	..	..	4,5
DS	Acacia laricina Meissner	..P	..	..	..	..	B2	..	..	..	..	4
DT	Acacia lasiocalyx C.R.P. Andrews	PAP	..	..	..	..	..	E4	..	..	B2	4,5
DS	Acacia lasiocarpa Benth. var. lasiocarpa	..P	..	..	..	..	A2	..	..	..	..	4
DS	Acacia lasiocarpa Benth. var. bracteolata Maslin	...	..	..	..	..	A2	..	..	..	..	4
MS	Acacia latipes Benth.	...	..	..	..	..	..	..	..	..	A2	4
LS	Acacia leptoneura Benth.	A..	..	..	..	..	B2	..	..	..	B3	4
SS	Acacia leptospermoides Benth. var. leptospermoides	...	..	..	..	..	A1	..	..	..	..	4
LS	Acacia ligulata Cunn. ex Benth.	PP.	..	..	..	..	B2	..	..	..	..	6
MS	Acacia aff. lineolata Benth. (KRN 5421)	PA.	..	..	..	A2	..	C3	..	..	B2	2,3
MP	Acacia maxwellii Maiden & Blakely	...	..	..	..	..	..	..	..	B2	..	2,3
SS	Acacia merrallii F. Muell. x A. sp. (MAB 2231)	...	..	..	..	..	A1	..	..	..	..	1
MS	Acacia multispicata Benth.	AAA	..	..	..	..	B3	..	..	..	..	4,5
MS	Acacia aff. multispicata Benth. (MAB 3785)	...	..	..	..	..	A3	..	..	..	..	1
MS	Acacia myrtifolia (Smith)Willd.	..P	..	..	..	..	..	..	C5	..	A1	6
DS	Acacia nitidula Benth. (MAB 2229)	...	..	..	..	..	..	C4	B4	..	..	2,3
DS	Acacia nodiflora Benth. var. ferox E. Pritzel	PAP	..	..	..	..	..	B4	..	..	..	4
LS	Acacia nyssophylla F. Muell.	AAA	..	..	..	..	..	B2	..	..	..	6
DS	Acacia pachypoda Maslin	PAP	..	..	..	..	..	B3	..	..	..	2,5
DS	Acacia phlebopetala Maslin var. phlebopetala	...	..	..	..	..	..	A1	..	..	..	2,3
DS	Acacia pilosa Benth.	..P	..	..	..	..	..	..	..	..	A2	2,3
DS	Acacia pritzeliana C. Gardner	..P	3RC	..	..	..	A2	C3	..	..	A2	2
MS	Acacia pulchella R. Br. var glaberrima Meissner	...	..	..	..	..	..	B1	..	..	B1	4
TS	Acacia saligna (Labill.)H.L. Wendl.	.AP	..	..	..	..	..	C2	..	..	..	4
SS	Acacia saxatilis S. Moore	PAP	..	..	..	..	..	..	B4	..	..	4
SS	Acacia aff. saxatilis S. Moore (MAB 2242)	...	..	..	..	..	..	..	A2	..	..	1
MS	Acacia sessilis Maiden & Blakely	P..	..	..	..	..	..	B3	..	..	..	4
DS	Acacia sorophylla E. Pritzel	..P	3VC	..	..	..	..	..	B3	..	..	2
SS	Acacia sphacelatus Benth.	...	..	..	..	..	..	..	..	..	A2	4
SS	Acacia spinosissima Benth.	P.P	..	..	..	..	..	..	..	..	A1	4
MS	Acacia subcaerulea Lindley	..P	..	..	..	..	..	A4	..	..	..	2,3
DS	Acacia sulcata R. Br. var. sulcata	...	..	..	..	..	..	..	..	..	A3	2,3
SS	Acacia sulcata R. Br. var. platyphylla Maiden & Blakely	A..	..	..	..	..	..	..	B3	..	A2	4
MS	Acacia triptycha F. Muell. ex Benth.	...	..	..	..	..	..	A3	..	..	..	4
SS	Acacia uncinella Benth.	.P.	..	..	..	..	..	..	..	..	A3	4,5
DS	Acacia unifissilis Court	P.P	..	..	..	..	..	..	..	..	B2	4
DS	Acacia varia Maslin var. parviflora (Benth.)Maslin	...	..	..	..	..	..	..	..	..	A1	4
MS	Acacia viscofilia Maiden & Blakely	P.P	..	..	..	..	..	..	B3	..	..	2,3
LS	Acacia warramaba Maslin	P..	..	..	..	..	..	A2	..	..	..	2,5
DS	Acacia sp. A (MAB 4591)	..P	..	..	..	..	..	..	..	..	B2	4
DS	Acacia sp. B (MAB 3858)	...	2V	..	..	..	..	B2	..	..	..	2
DS	Acacia sp. C (MAB 3540)	..P	..	..	..	..	..	C2	..	..	..	4
DS	Acacia sp. D (MAB 2319)	..P	..	..	..	..	..	B2	..	..	..	4
DS	Acacia sp. E (MAB 4008)	..P	3VC	..	..	..	..	..	..	..	A2	4
SS	Acacia sp. F (MAB 2575)	...	..	..	..	..	..	B2	..	..	..	2,5
DS	Acacia sp. G (MAB 4562)	..P	..	..	..	..	..	..	B3	..	..	2
DS	Acacia sp. H (MAB 1192)	...	..	..	..	..	..	..	..	..	A1	2
DS	Acacia sp. I (MAB 4287)	..P	2VC	..	..	..	..	C3	C2	..	..	1
DS	Acacia sp. J (MAB 2157)	..P	..	..	..	..	..	..	C3	..	..	4
DS	Acacia sp. K (MAB 1916)	...	3R	..	..	..	..	..	C3	..	..	2
DS	Acacia sp. L (MAB 3528)	...	..	..	..	..	..	A1	..	..	..	1
DS	Acacia sp. M (MAB 1575)	...	..	..	..	..	..	A2	..	..	..	1
SS	Acacia sp. N (MAB 2740)	...	1V	..	..	..	..	A2	..	..	..	1
DS	Acacia sp. O (KRN 9681)	...	2E	..	..	..	..	..	A1	..	..	2
DS	Acacia sp. P (KRN 9714)	...	3E	..	..	..	..	..	..	..	A4	1
DS	Acacia sp. Q (KRN 9764)	...	..	..	..	..	..	..	..	..	A2	1
DS	Acacia sp. R (KRN 9810)	...	1E	..	..	..	..	..	..	..	A3	1
DS	Acacia sp. S (KRN 7952)	...	..	..	..	..	..	A1	..	..	..	1
DS	Acacia sp. T (KRN 9786)	...	..	..	..	..	..	..	..	..	B2	1
DS	Acacia sp. U (KRN 8138)	P..	2KC	..	..	..	..	A1	..	..	..	2
SS	Acacia sp. V (KRN 8141)	.P.	3KC	..	..	..	..	B1	..	..	..	2
TS	Acacia sp. W (KRN 8276)	...	2E	..	..	..	..	A3	..	..	..	1
DS	Acacia sp. X (KRN 8280)	...	1E	..	..	..	..	A1	..	..	..	1
164 CAESALPINIACEAE													
SS	Cassia cardiosperma F. Muell.	...	..	..	..	..	..	C4	..	..	..	2,5
SS	Cassia nemophila Cunn. ex Vogel var. nemophila	PAP	..	..	..	..	..	C3	..	..	..	6
LS	Cassia pleurocarpa F. Muell. var. angustifolia Symon	...	..	..	..	..	..	B2	..	..	..	6
MS	Labichea lanceolata Benth. ssp. brevifolia (Meissner)J.H. Ross	.AP	..	..	..	..	..	C4	..	..	..	4

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
165	PAPILIONACEAE												
DS	Aotus aff. procumbens Meissner (MAB 1865)	...	..	..	..	A2	..	..	..	B2	..	4
DS	Aotus sp. A (KRN 9833)	PA.	1EC	..	..	..	A3	..	..	..	..	1
SS	Bossiaea dentata (R. Br.)Benth.	...	..	..	..	..	..	B2	..	..	..	2,3
DS	Bossiaea leptacantha E. Pritzel	APP	..	..	..	..	C4	..	..	..	B3	4,5
DS	Bossiaea preissii Meissner	...	..	..	..	..	..	..	..	B2	..	2,3
DS	Brachysema daviesioides (Turcz.)Benth.	P.P	..	..	..	C2	..	..	..	..	..	4,5
MP	Brachysema latifolium R. Br.	..P	..	..	..	..	..	..	..	A2	..	2,3
DS	Burtonia conferta DC.	...	..	..	..	..	..	..	..	B2	..	4
DS	Burtonia hendersonii (Paxton)Benth.	...	..	..	..	..	..	..	..	A2	..	4,5
SS	Burtonia scabra (Smith)R. Br.	...	..	..	..	..	..	..	..	B3	..	2,3
DS	Burtonia aff. viscida E. Pritzel (MAB 2478)	...	..	..	..	A1	..	..	..	..	..	4
DS	Chorizema aciculare (DC.)C. Gardner	P.A	..	..	..	C3	..	..	..	C2	..	4
DS	Chorizema cytisoides Turcz.	...	..	..	..	..	..	..	..	A1	..	2,3
DS	Chorizema nervosum T. Moore	..P	..	..	..	..	..	..	..	B2	..	3
DS	Chorizema uncinatum C.R.P. Andrews	..P	..	..	..	C2	C2	..	..	..	..	3
DS	Chorizema sp. A (MAB 2135)	...	2V	..	..	..	..	..	..	A1	..	2
MS	Daviesia benthamii Meissner ssp. benthamii	AAP	..	..	..	..	D4	..	..	B3	..	6
DS	Daviesia benthamii Meissner ssp. A (MAB 2215)	...	..	..	..	..	C2	..	..	..	..	1
SS	Daviesia gracilis M.D. Crisp	...	..	..	..	..	..	..	..	A1	..	4
SS	Daviesia incrassata Smith	...	..	..	..	..	..	..	..	D3	..	4
DS	Daviesia lancifolia Turcz.	P.P	..	..	..	..	B2	..	..	B2	B2	2,5
SS	Daviesia nematophylla F. Muell. ex Benth.	...	..	..	..	C3	..	..	..	..	..	4
DS	Daviesia nudiflora Meissner	..P	..	..	..	D3	..	..	..	..	..	3
SS	Daviesia pachyphylla F. Muell.	...	..	..	..	..	..	..	..	A3	..	4
DS	Daviesia rhombifolia Meissner	..P	..	..	..	..	..	..	..	B3	..	4
DS	Daviesia teretifolia R. Br. ex Benth.	..P	..	..	..	..	..	..	..	B2	B2	2
DS	Daviesia sp. A (MAB 1552)	...	..	..	..	..	B2	..	..	..	..	2
DS	Daviesia sp. B (MAB 4623)	..P	3KC	..	..	..	B1	..	..	..	..	4
DS	Daviesia sp. C (KRN 8162)	..P	1EC	..	..	..	A4	..	..	..	..	1
DS	Daviesia sp. D (MAB 2364)	...	..	..	..	..	..	B2	..	..	..	2
DS	Daviesia sp. E (MAB 4525)	..P	3VC	..	..	..	B3	..	..	..	..	1
SS	Daviesia sp. F (KRN 6800)	...	..	..	..	..	..	..	..	C2	..	3
DS	Dillwynia acerosa S. Moore	...	3K	..	..	..	B3	..	..	..	..	2,5
DS	Dillwynia divaricata (Turcz.)Benth.	...	3K	..	..	..	B3	..	..	..	..	2,3
SS	Dillwynia uncinata (Turcz.)J. Black	P.P	..	..	..	B2	A1	..	..	A1	B2	4
DS	Eutaxia cuneata Meissner	...	..	..	..	..	..	..	..	A2	..	2,3
DS	Eutaxia densifolia Turcz.	...	..	..	..	..	A2	..	..	..	..	4
DS	Eutaxia microphylla (R. Br.)J. Black var. microphylla	..P	..	..	..	..	A1	..	..	..	..	6
DS	Eutaxia parvifolia Benth.	..P	..	..	..	..	A2	..	..	..	..	4
DS	Gastrolobium bilobum R. Br.	...	..	..	..	..	..	..	..	A2	..	4
SS	Gastrolobium reticulatum (Meissner)Benth.	P.P	..	..	..	..	..	..	..	B2	..	2,3
MS	Gastrolobium spinosum Benth. var. spinosum	..AP	..	..	..	..	C3	..	..	..	..	4
DS	Gompholobium baxteri Benth.	..P	..	..	..	..	..	..	..	B2	..	2,3
DS	Gompholobium knightianum Lindley	..P	..	..	..	C2	..	C2	..	A1	..	4
DS	Gompholobium marginatum R. Br.	...	..	..	..	..	..	B1	..	A1	..	4
DS	Gompholobium viscidulum Meissner	...	..	..	..	..	..	..	..	B1	..	4
DS	Hovea pungens Benth.	..P	..	..	..	..	C3	..	..	A2	..	4
DS	Hovea trisperma Benth.	...	..	..	..	..	..	..	..	A2	..	4
SS	Indigofera australis Willd. var. australis	..PP	..	..	..	C2	..	..	..	..	..	6
DS	Isotropis drummondii Meissner	...	..	..	..	..	..	..	..	A1	..	4
DS	Jacksonia aphylla (Turcz.)Druce	..P	..	..	..	C3	..	..	..	..	..	2,3
DS	Jacksonia capitata Benth.	..P	..	..	..	..	B2	..	C2	..	..	4
SS	Jacksonia lehmannii Meissner	...	..	..	..	..	..	..	..	A1	..	4
DS	Jacksonia racemosa Meissner	...	..	..	..	..	..	..	..	A1	..	4
DS	Jacksonia aff. racemosa Meissner (KRN 9789)	...	..	..	..	..	..	..	C2	..	..	2,3
MP	Kennedia beckxiana (F. Muell.)F. Muell.	...	2R	..	..	..	B2	..	..	..	..	3
MP	Kennedia eximia Lindley	..P	..	..	..	..	B1	..	..	..	..	2,3
DS	Latrobea sp. A (MAB 3862)	...	..	..	..	A2	..	..	..	..	..	1
AS	*Medicago polymorpha L.	...	..	..	..	A2	..	..	..	..	..	7
AS	*Medicago truncatula Gaertner ssp. longispinea Urb.	...	..	..	..	A2	..	..	..	..	..	7
SS	Mirbelia multicaulis (Turcz.)Benth.	...	..	..	..	..	..	B1	..	..	..	4
SS	Mirbelia sp. A (KRN 7372)	...	..	..	..	..	..	B1	..	..	..	4
DS	Oxylobium microphyllum Benth.	P..	..	..	..	C3	B2	..	..	B2	..	2,3
SS	Oxylobium obovatum Benth.	...	..	..	..	..	A2	..	..	..	..	4
SS	Oxylobium parviflorum Benth. var. parviflorum	..P	..	..	..	..	..	D2	..	B2	..	4
SS	Oxylobium parviflorum Benth. var. revolutum	...	..	..	..	..	..	..	..	..	..	4
SS	Oxylobium parviflorum Benth. var. stenocarpum	...	..	..	..	..	..	..	..	A1	..	4
SS	Phyllota sp. A (MAB 3726)	...	..	..	..	..	..	..	..	A2	..	4
SS	Pultenaea adunca Turcz.	...	..	..	..	..	A2	..	..	..	..	1
DS	Pultenaea arida E. Pritzel	P.P	..	..	..	C3	..	..	..	..	..	2,3
DS	Pultenaea barbata C.R.P. Andrews	..AP	3RC	..	..	..	C3	..	..	..	..	2,3
DS	Pultenaea capitata (Turcz.)Druce	...	..	..	..	..	A2	..	..	..	..	2,3
DS	Pultenaea conferta Benth.	...	..	..	..	..	..	..	..	A2	..	4
DS	Pultenaea elastica (F. Muell.)M.D. Crisp	A.P	..	..	..	..	B3	..	..	..	..	2,3
DS	Pultenaea ericifolia Benth.	A.P	..	..	..	..	B3	..	..	..	..	6
DS		..P	..	..	..	A1	..	..	..	..	..	2,3

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
DS	Pultenaea neurocalyx Turcz. var. neurocalyx	..P	..		..	..	..	..	..	C2	..	2,3
DS	Pultenaea spinulosa (Turcz.)Benth.	...	..		..	..	..	..	..	A2	..	4,5
DS	Pultenaea verruculosa Turcz. var. verruculosa	...	..		..	..	A2	..	..	..	..	2,3
DS	Pultenaea sp. A (MAB 3600)	...	..		..	..	..	B2	..	..	..	1
DS	Pultenaea sp. B (MAB 4280)	..P	2VC		..	..	..	B3	..	..	..	1
DS	Pultenaea sp. C (MAB 2565)	...	3V		..	..	B2	..	..	..	..	1
DS	Pultenaea sp. D (MAB 2826)	...	2V		..	..	..	..	B3	..	..	1
DS	Pultenaea sp. E. (MAB 2798)	...	1E		..	..	..	B2	..	..	..	1
DS	Pultenaea sp. F (MAB 2835)	...	..		..	..	..	B2	..	..	..	1
DS	Pultenaea sp. G (MAB 3600b)	...	..		..	..	A2	..	..	..	..	1
DS	Pultenaea sp. H (KRN 7928)	...	1E		..	..	..	A2	..	..	..	1
DS	Pultenaea sp. I (KRN 9441)	...	..		..	..	..	..	A1	..	..	1
DS	Sphaerolobium daviesioides Turcz.	P.P	..		..	..	..	..	..	..	A2	2,3
DS	Sphaerolobium grandiflorum (R. Br.)Benth.	...	..		..	..	A2	..	..	..	..	4
DS	Sphaerolobium linophyllum (Huegel)Benth.	A..	..		..	..	..	..	..	A2	..	4
DS	Sphaerolobium macranthum Meissner	...	..		..	..	A2	..	..	..	..	4
SS	Swainsona colutoides F. Muell.	..P	..		..	..	..	A2	..	..	..	6
DS	Templetonia aculeata (F. Muell.)Benth.	..P	..		..	..	..	..	..	..	A2	6
MS	Templetonia retusa (Vent.)R. Br.	...	..		..	..	..	..	..	..	C3	6
SS	Templetonia sulcata (Meissner)Benth.	..P	..		..	..	A2	C3	..	..	C3 B3	6
167	GERANIACEAE												
AS	*Erodium cicutarium (L.)L'Her.	...	..		..	..	..	A2	B2	..	..	7
AS	Erodium crinitum Carolin	...	..		..	..	..	..	..	C3	..	6
HP	Pelargonium australe Willd.	..PP	..		..	..	..	..	D4	..	A1	6
HP	Pelargonium drummondii Turcz.	..P	..		..	..	..	..	..	C4	..	4
168	OXALIDACEAE												
HP	Oxalis corniculata L.	..P	..		..	..	C3	..	C3	..	..	7
170	LINACEAE												
AS	Linum marginale Cunn. ex Planchon	..P	..		..	..	A2	..	..	..	..	6
173	ZYGOPHYLLACEAE												
DS	Zygophyllum apiculatum F. Muell.	...	..		..	C2	..	..	..	..	..	6
DS	Zygophyllum aurantiacum (Lindley)F. Muell.	..P	..		..	..	..	..	..	B2	..	6
DS	Zygophyllum glaucum F. Muell.	PPP	..		..	..	..	B2	..	..	..	6
AS	Zygophyllum ovatum Ewart & J. White	..P	..		..	C2	..	B2	..	..	..	6
175	RUTACEAE												
SS	Boronia baeckeacea F. Muell.	AAA	..		..	..	..	C3	..	..	..	4
DS	Boronia coerulescens F. Muell. ssp. coerulescens	P..	..		..	..	B2	..	..	..	..	6
DS	Boronia crassifolia Bartling	AAP	..		..	..	C3	C3	..	..	..	4
DS	Boronia crenulata Smith var. crenulata	...	..		..	..	..	A2	..	..	..	4
DS	Boronia crenulata Smith var. gracilis (Benth.)												
	Paul G. Wilson	...	..		..	A2	..	..	..	..	..	4
DS	Boronia aff. fabianoides (Diels)Paul G. Wilson												
	(KRN 7973)	...	3V		..	..	..	C2	..	..	..	2,3
DS	Boronia inconspicua Benth.	...	..		..	..	..	A2	..	..	..	2,3
DS	Boronia inornata Turcz. ssp. inornata	PAP	..		..	..	..	D5	..	..	..	2,3
DS	Boronia inornata Turcz. ssp. leptophylla (Turcz.)												
	Burgman	...	..		..	..	..	D5	..	..	..	6
DS	Boronia oxyantha Turcz. var. brevicealyx (Benth.)												
	Paul G. Wilson	...	3RC		..	..	..	..	..	..	A3	3
DS	Boronia ramosa (Lindley)Benth.	P.P	..		..	..	..	..	..	A1	..	4
DS	Boronia scabra Lindley	...	..		..	..	..	A3	..	..	A3	4
DS	Boronia spathulata Lindley	...	..		..	..	..	C3	..	B3	..	4
DS	Eriostemon fitzgeraldii C.R.P. Andrews	..PP	3RC		..	..	C2	C2	..	..	..	2
DS	Eriostemon rhomboideus Paul G. Wilson	P.P	..		..	..	..	..	..	A2	..	2
DS	Eriostemon thryptomenoides S. Moore	...	..		..	..	A2	..	A2	..	..	3,5
DS	Eriostemon aff. thryptomenoides S. Moore												
	(MAB 1535)	...	2E		..	..	C2	..	..	..	..	1
TS	Geijera linearifolia (DC.)J. Black	..P	..		..	..	..	..	..	B2	..	6
DS	Microcybe multiflora Turcz. var. multiflora	APP	..		..	..	..	D4	..	..	..	6
DS	Microcybe multiflora Turcz. var. baccharoides												
	(F. Muell.)Ewart & Tovey	P.P	..		..	..	..	D3	..	..	..	2
DS	Microcybe pauciflora Turcz.	P..	..		..	..	..	..	..	..	B2	6
MS	Nematolepis phebaloides Turcz.	..P	..		..	..	B2	C3	..	..	..	2,3
SS	Phebalium filifolium Turcz.	AAP	..		..	..	..	C3	..	..	..	4,5
SS	Phebalium lepidotum (Turcz.)Paul G. Wilson var.												
	lepidotum	P.P	..		..	..	B2	C2	..	..	..	4,5
SS	Phebalium microphyllum Turcz.	AP.	..		..	..	..	A2	..	..	..	4,5
SS	Phebalium aff. microphyllum Turcz.(KRN 6109)	..P	..		..	..	A2	..	..	..	..	2,5
183	POLYGALACEAE												
DS	Comesperma acerosum Steetz	...	3V		..	..	C2	..	..	..	..	4
DS	Comesperma calymega Labill.	P.P	..		..	..	A1	..	..	..	..	6
DS	Comesperma ciliatum Steetz	..P	..		..	..	A1	..	..	..	..	4,5

Appendix 1 (continued). Flora List

LF		RES		LANDFORM									DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
DS	Comesperma confertum Labill.	...	..	..	..	..	..	..	..	A1	..	4
DS	Comesperma drummondii Steetz	PPP	..	..	..	..	B2	..	..	..	..	4,5
CL	Comesperma integerrimum Endl.	...	..	..	..	A1	..	..	..	..	..	4,5
DS	Comesperma lanceolatum (R. Br.)Benth.	...	..	..	..	..	..	..	..	B1	..	2,3
SS	Comesperma scoparium Steetz	...	..	..	..	..	..	..	..	B1	..	4
DS	Comesperma spinosum F. Muell.	PPA	..	..	..	C3	..	..	B3	B3	..	4
CL	Comesperma volubile Labill.	PPP	..	..	..	B1	..	..	..	B1	..	6
185 EUPHORBIACEAE													
DS	Amperea ericoides Adr.Juss.	P.P	..	..	..	A1	..	..	..	A1	..	4
DS	Amperea sp. A (KRN 5147)	..P	..	..	..	A2	..	..	..	..	..	1
SS	Beyeria lechenaultii (DC.)Baillon	PAP	..	..	..	C2	..	..	..	..	..	6
DS	Monotaxis occidentalis Endl.	...	..	..	..	A1	..	..	..	A1	..	4
DS	Phyllanthus calycinus Labill.	..AA	..	..	..	C2	..	C2	..	..	..	6
AS	Poranthera microphylla Brongn.	..PP	..	..	..	A1	..	..	..	A1	..	6
AS	Poranthera sp. A (MAB 3739)	...	..	..	..	A2	..	..	..	..	..	1
LS	Ricinocarpos trichophorus Muell.Arg.	..P	2VC	..	..	..	..	B4	..	..	..	2,3
DS	Stachystemon brachyphyllus Muell.Arg.	...	..	..	..	..	B2	..	..	B1	..	2,3
DS	Stachystemon polyandrus (F. Muell.)Benth.	...	..	..	..	..	B2	..	..	..	B2	2,3
DS	Stachystemon sp. A (KRN 9773)	...	1E	..	..	..	..	..	..	A2	..	1
202 STACKHOUSIACEAE													
DS	Stackhousia monogyna Labill.	PPP	..	..	..	..	B3	B3	..	..	..	4,5
DS	Stackhousia muricata Lindley	...	..	..	..	..	..	A2	..	..	..	6
DS	Stackhousia scoparia Benth.	..P	..	..	..	..	B1	..	..	A1	..	4,5
DS	Tripterococcus brunonis Endl.	P..	..	..	..	..	A2	..	..	..	B2	4
207 SAPINDACEAE													
MS	Dodonaea amblyophylla Diels	AAA	..	..	..	..	C3	..	..	..	..	4,5
DS	Dodonaea bursariifolia F. Muell.	PPP	..	..	..	..	C4	..	..	..	B3	6
DS	Dodonaea caespitosa Diels	..P	..	..	..	..	A1	..	..	..	..	4
SS	Dodonaea ceratocarpa Endl.	..AP	..	..	..	..	..	E4	..	..	..	4
MS	Dodonaea concinna Benth.	..P	..	..	..	..	..	..	..	..	B2	2,3
DS	Dodonaea glandulosa J.G. West	..P	2VC	..	..	..	B3	..	..	..	..	2
DS	Dodonaea pinifolia Miq.	..P	..	..	..	..	..	..	..	A1	..	4,5
LS	Dodonaea ptarmicaefolia Turcz.	..AP	..	..	..	..	C3	..	..	..	..	2,3
SS	Dodonaea stenozyga F. Muell.	PAP	..	..	..	..	C4	..	..	..	..	6
MS	Dodonaea viscosa Jacq.	..P	..	..	..	..	..	B2	..	..	..	6
TS	Heterodendrum oleaeifolium Desf.	...	..	..	..	..	..	..	..	B3	..	6
215 RHAMNACEAE													
DS	Cryptandra glabriflora Benth.	AAA	..	..	..	D3	..	..	..	..	C3	4,5
DS	Cryptandra nutans Steudel	..P	..	..	..	..	C3	..	..	..	..	4,5
DS	Cryptandra parvifolia Turcz.	...	..	..	..	..	C3	..	..	..	..	2,5
DS	Cryptandra polyclada Diels	P..	..	..	..	..	A2	..	..	..	..	2
SS	Cryptandra pungens Steudel	A.P	..	..	..	..	C3	..	C3	..	A1	4,5
DS	Cryptandra sp. A (MAB 3897)	...	..	..	..	..	..	C3	..	..	..	1
DS	Cryptandra sp. B (MAB 3257)	...	..	..	..	..	..	C3	..	..	..	1
SS	Pomaderris intangenda F. Muell.	...	3V	..	..	..	..	..	A2	..	..	2,5
MS	Pomaderris myrtilloides Fenzl	...	..	..	..	..	C3	..	..	..	..	2,5
SS	Pomaderris sp. A (KRN 9788)	...	..	..	..	..	..	..	..	B1	..	1
DS	Siegfriedia darwinoides C. Gardner	...	3VC	..	..	..	..	B2	..	..	..	2,3
DS	Spyridium complicatum F. Muell.	P.P	..	..	..	..	B2	D2	..	B2	..	2,5
DS	Spyridium cordatum (Turcz.)Benth.	P..	..	..	..	..	C3	..	..	..	..	2,3
SS	Spyridium oligocephalum (Turcz.)Benth.	P.P	3RC	..	..	..	C3	..	..	..	..	4
DS	Spyridium rotundifolium F. Muell.	..P	..	..	..	..	..	B3	..	..	..	2
DS	Spyridium sp. A (KRN 6108)	...	3K	..	..	..	..	B3	..	..	..	2
DS	Spyridium sp. B (KRN 7931)	...	3KC	..	..	..	A2	..	..	..	..	2
DS	Spyridium sp. C (KRN 8212)	...	..	..	..	..	A2	..	..	..	..	2,5
MS	Trymalium aff. ledifolium Fenzl (KRN 5606)	..A.	..	..	..	..	..	A2	..	..	..	2,5
DS	Trymalium sp. A (MAB 2070)	...	..	..	..	..	..	C2	..	..	..	2
221 MALVACEAE													
HP	Alyogyne hakeifolia (Giord.)Alef.	..P	..	..	..	..	..	..	A2	..	..	6
HP	Alyogyne huegelii (Endl.)Fryx. var. grossulariaefolius (Miq.)A.S. Mitchell	...	..	..	..	..	A2	..	..	..	..	6
DS	Lawrencia berthae (F. Muell.)Melville	..P	..	..	..	C3	..	..	..	..	..	6
DS	Lawrencia densiflora (E.G. Barker)Melville	...	..	..	..	..	..	..	..	C3	..	5
HP	Lawrencia diffusa (Benth.)Melville	..P	3VC	..	B2	..	..	..	..	A2	..	4,5
HP	Lawrencia spicata Hook.	...	..	..	..	..	..	..	..	..	A3	6
SS	Lawrencia squamata Nees ex Miq.	..A.	..	..	..	..	..	..	..	B5	..	6
223 STERCULIACEAE													
SS	Guichenotia ledifolia Gay	..A.	..	..	..	..	A2	B2	..	..	..	4
DS	Lasiopetalum compactum S. Paust	...	..	..	..	..	..	..	..	..	A2	2,3
DS	Lasiopetalum indutum Steudel	..P	..	..	..	..	..	..	..	..	A2	2,3
DS	Lasiopetalum quinquenervium Turcz.	...	..	..	..	..	A2	..	..	..	..	2,3
DS	Lasiopetalum rosmarinifolium (Turcz.)Benth.	P.P	..	..	..	..	C3	..	..	..	..	4

Appendix 1 (continued). Flora List

LF		RES		LANDFORM									DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
SS	Rulingia cygnorum (Steudel)C. Gardner var. cygnorum	...	..	..	..	..	C3	..	..	..	..	4
SS	Rulingia aff. platycalyx Benth. (MAB 2039)	...	..	..	..	B2	..	..	..	..	..	1
SS	Rulingia rotundifolia Turcz.	...	..	..	..	A2	..	..	..	..	..	2,5
DS	Thomasia angustifolia Steudel	.P.	..	..	..	..	B2	..	..	..	..	4
DS	Thomasia foliosa Gay	...	..	..	..	..	B2	..	..	..	..	4
DS	Thomasia grandiflora Lindley	...	..	..	..	C3	..	..	..	..	..	4
DS	Thomasia microphylla S. Paust	...	..	..	..	..	..	..	..	A2	..	2,3
DS	Thomasia petalocalyx F. Muell.	.P	..	..	..	A2	..	..	..	..	..	6
DS	Thomasia purpurea (Aiton)Gay	...	..	..	..	A2	..	..	..	..	..	4
226	DILLENIACEAE												
DS	Hibbertia acerosa (R. Br. ex DC.)Benth.	.P	..	..	..	C3	C3	..	..	..	..	4
DS	Hibbertia eatoniae Diels	P..	..	..	..	..	..	..	..	A2	..	4
DS	Hibbertia andrewsiana Diels	...	3RC	..	..	..	..	..	..	B3	..	3
DS	Hibbertia exasperata (Steudel)Briq.	P.P	..	..	..	C3	..	..	..	..	..	4
DS	Hibbertia gracilipes Benth.	A.P	..	..	..	C3	..	..	..	C3	..	4
DS	Hibbertia aff. gracilipes Benth. (MAB 1048)	.P	..	..	..	A2	..	..	..	..	..	1
DS	Hibbertia inclusa Benth.	P.P	..	..	..	C3	..	..	..	..	..	4
DS	Hibbertia lineata Steudel	...	..	..	..	C3	..	..	..	..	..	4
DS	Hibbertia pungens Benth.	PAA	..	..	..	C3	..	..	..	B1	..	4,5
DS	Hibbertia racemosa (Endl.)Gilg	...	..	..	..	B1	..	..	..	B1	..	4
DS	Hibbertia recurvifolia (Steudel)Benth.	.P	..	..	..	C3	..	..	..	..	..	4
DS	Hibbertia aff. recurvifolia (Steudel)Benth. (MAB 1583)	.P.	..	..	..	B1	..	..	..	..	..	1
DS	Hibbertia rupicola (S. Moore)C. Gardner	APP	..	..	..	C3	B3	..	..	..	..	4
DS	Hibbertia sp. A (MAB 1055)	...	..	..	..	A3	..	..	..	..	..	2
DS	Hibbertia sp. B (MAB 1107)	.P	..	..	..	A1	..	..	..	..	..	2
DS	Hibbertia sp. C (MAB 1822)	...	..	..	..	B1	..	..	..	..	..	2
DS	Hibbertia sp. D (MAB 2193)	P..	..	..	..	A2	..	..	..	..	..	2
DS	Hibbertia sp. E (MAB 3823)	...	..	..	..	A1	..	..	..	..	..	2,5
DS	Hibbertia sp. F (MAB 3771)	...	..	..	..	A1	..	..	..	..	..	2
DS	Hibbertia sp. G (MAB 1450)	...	..	..	..	A2	..	..	..	..	..	2,5
DS	Hibbertia sp. H (MAB 4028)	.P	..	..	..	..	..	..	..	..	..	2,5
236	FRANKENIACEAE												
MP	Frankenia brachyphylla Summerh.	.P	..	..	D4	..	..	..	C3	..	..	5
DS	Frankenia cinerea A. DC.	.AP	..	..	C3	..	..	..	D4	..	..	6
DS	Frankenia densa Summerh.	...	..	..	..	..	..	..	B3	..	..	6
DS	Frankenia desertorum Summerh.	.A	..	..	..	..	..	..	B4	..	..	6
DS	Frankenia pauciflora DC.	.A.	..	..	..	..	..	..	B3	..	..	6
243	VIOLACEAE												
DS	Hybanthus floribundus (Lindley)F. Muell. ssp. floribundus	...	..	..	..	..	A3	..	..	..	..	6
263	THYMELAEACEAE												
DS	Pimelea angustifolia R. Br.	.P	..	..	..	C3	..	..	C1	..	..	4
SS	Pimelea argentea R. Br.	...	..	..	..	A2	..	..	..	..	..	4
DS	Pimelea brachyphylla Benth.	.P	..	..	..	..	B2	..	..	..	..	4
DS	Pimelea brevifolia R. Br.	P.P	..	..	..	A2	..	..	..	A2	..	4,5
DS	Pimelea suaveolens Meissner	.P	..	..	..	..	B3	..	..	..	..	4,5
SS	Pimelea aff. suaveolens Meissner (KRN 25)	...	..	..	..	..	..	..	..	A1	..	2,3
DS	Pimelea sulphurea Meissner	...	..	..	..	B2	..	..	..	B2	..	4
DS	Pimelea tinctoria Meissner	A..	..	..	..	..	B3	..	..	..	..	2,3
SS	Pimelea sp. A (KRN 70)	...	..	..	..	..	..	..	..	A1	..	2,3
DS	Pimelea sp. B (MAB 2846)	...	..	..	..	..	A1	..	..	..	..	2
MS	Pimelea sp. C (KRN 9769)	...	..	..	..	..	..	..	..	A1	..	3
273	MYRTACEAE												
SS	Agonis obtusissima F. Muell.	...	..	..	..	..	..	..	..	A2	..	2,3
SS	Agonis spathulata Schauer	.P	..	..	..	..	..	..	..	C3	..	2,3
DS	Angasomyrtus salina M.E. Trudgen & G.J. Keighery	.P	2VC	..	C4	..	..	..	..	..	..	1
SS	Astartea ambigua F. Muell.	APA	..	..	C2	C3	C4	B2	..	D3	..	4
SS	Astartea clavulata Turcz.	...	..	..	..	A2	..	..	..	..	..	4
DS	Astartea heteranthera C. Gardner	.P	..	..	..	..	..	..	..	A2	..	2,5
SS	Baeckea blackettii F. Muell.	.P	..	..	..	B2	..	..	..	..	..	2,3
SS	Baeckea corynophylla F. Muell.	...	..	..	..	B2	..	..	..	B2	..	4
SS	Baeckea crassifolia Lindley var. icosandra F. Muell. ex Benth.	...	3RC	..	..	..	..	..	..	A2	..	2
SS	Baeckea aff. crassifolia Lindley (MAB 1666)	...	..	..	..	..	..	..	..	A1	..	2
SS	Baeckea crispiflora F. Muell.	PPP	..	..	..	..	..	..	..	A2	..	4
MS	Baeckea latens C.R.P. Andrews	.P	..	..	..	C3	..	C3	..	..	..	4,5
SS	Baeckea aff. latens C.R.P. Andrews A (MAB 4271)	P..	..	..	..	B2	..	..	A2	B2	..	2
SS	Baeckea aff. latens C.R.P. Andrews B (MAB 4618)	.P	..	..	..	A2	..	..	..	..	..	2
SS	Baeckea polyandra F. Muell.	...	..	..	..	A2	..	..	B2	..	..	3
SS	Baeckea preissiana (Schauer)Domin	PAP	..	..	..	..	..	..	..	C3	..	4,5
DS	Beaufortia elegans Schauer	...	..	..	..	..	..	..	..	A1	..	4
SS	Beaufortia empetrifolia (Reichb.)Schauer	.A	..	..	..	D5	..	..	..	C3	..	2,3

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
SS	Beaufortia aff. empetrifolia (Reichb.) Schauer (KRN 7970)	...	3V	..	..	A3	..	..	..	..	..	2
DS	Beaufortia micrantha Schauer var. micrantha	AAA	..	..	..	D4	..	..	..	..	C4	4
DS	Beaufortia aff. micrantha Schauer (MAB 1712)	...	..	..	..	B3	..	..	..	..	A3	2
SS	Beaufortia schaueri Preiss ex Schauer	PPA	..	..	..	C4	..	D5	..	B2	B3	4
SS	Beaufortia aff. schaueri Preiss ex Schauer (MAB 2737)	..P	..	..	..	..	..	B3	..	..	..	1
DS	Calothamnus gibbosus Benth.	..P	..	..	..	C3	..	..	..	..	..	2,3
DS	Calothamnus gracilis R. Br.	AAA	..	..	..	C3	C3	..	..	E3	C3	2
SS	Calothamnus lateralis Lindley	..P	..	..	..	A1	..	..	..	..	..	4
MS	Calothamnus quadrifidus R. Br.	AAA	..	..	..	C3	..	E4	..	A1	B2	4
MS	Calothamnus villosus R. Br.	...	..	..	..	A2	..	..	..	..	..	4
DS	Calytrix decandra DC.	P..	..	..	..	..	..	..	..	C3	..	3
DS	Calytrix leschenaultii (Schauer) Benth.	APA	..	..	..	D4	..	C3	..	C2	C3	4,5
DS	Calytrix aff. stipulosa W. Fitzg.	PAA	..	..	..	A2	C4	..	..	..	A3	2,5
DS	Calytrix tenuiramea (Turcz.) Benth.	...	..	..	..	A2	..	..	..	..	..	4
SS	Calytrix tetragona Labill.	..P	..	..	..	A2	..	..	..	..	A3	6
DS	Calytrix sp. (MAB 3267)	...	..	..	..	A2	..	..	..	..	..	1
MS	Chamelaucium axillare F. Muell. ex Benth.	...	..	..	..	A2	..	..	..	..	..	2,3
MS	Chamelaucium ciliatum Desf.	P..P	..	..	..	C3	C4	..	..	..	..	2,3
DS	Chamelaucium drummondii Meissner	...	..	..	..	A1	..	..	..	..	..	4
MS	Chamelaucium megalopetalum F. Muell. ex Benth.	..P	..	..	..	C4	..	..	..	B2	..	4
SS	Chamelaucium sp. A (KRN 7954)	...	2V	..	..	..	..	A1	..	..	..	2,5
SS	Chamelaucium sp. B (MAB 4350)	..P	..	..	..	A1	..	..	..	..	..	2
DS	Conothamnus aureus (Turcz.) Domin	...	..	..	..	..	..	..	..	D3	..	4
DS	Darwinia diosmoides (DC.) Benth.	..PA	..	..	..	C4	..	..	..	B3	A3	4,5
DS	Darwinia aff. luehmanna F. Muell. & Tate (MAB 3241)	...	..	..	..	A2	..	..	..	..	..	4
DS	Darwinia vestita (Endl.) Benth.	...	..	..	..	..	..	..	..	C2	..	4
DS	Darwinia sp. A (MAB 1110)	..P	..	..	..	..	..	C3	..	..	..	1
DS	Darwinia sp. B (MAB 1839)	..P	..	..	..	C3	..	..	..	..	..	1
DS	Darwinia sp. C (MAB 1850)	..P	..	..	..	..	..	B2	..	..	..	1
DS	Darwinia sp. D (MAB 1274)	...	..	..	..	A2	..	..	..	..	..	1
DS	Darwinia sp. E (KRN 2426)	..P	..	..	..	..	..	..	..	..	..	2,3
DS	Darwinia sp. F (MAB 4517)	..P	1EC	..	..	A4	..	..	..	..	B2	1
DS	Darwinia sp. G (KRN 7975)	...	1E	..	..	..	..	A2	..	..	..	1
DS	Darwinia sp. H (KRN 9775)	...	..	..	..	..	..	..	..	A1	..	1
MAT	Eucalyptus anceps (R. Br. ex Maiden) Blakely	...	..	..	..	..	..	C4	..	..	..	6
MAT	Eucalyptus angulosa Schauer	...	..	..	..	..	..	..	..	B4	..	6
MAS	Eucalyptus angustissima F. Muell.	...	2RC	..	..	A3	B5	..	..	..	..	2
MAS	Eucalyptus aff. angustissima F. Muell. (MAB 3767)	...	3E	..	..	A2	..	..	..	..	..	1
MAT	Eucalyptus annulata Benth.	...	..	..	..	..	..	C6	..	..	..	4,5
MAS	Eucalyptus calycogona Turcz.	..AP	..	..	..	..	..	D5	..	B3	..	6
MAS	Eucalyptus celastroides Turcz. ssp. virella Brooker	AA.	..	..	..	..	..	B4	..	..	..	4
MAS	Eucalyptus conglobata (R. Br. ex Benth.) Maiden	..P	..	..	..	..	..	C4	C4	..	..	6
MAS	Eucalyptus cylindriflora Maiden & Blakely	AP.	..	..	..	..	..	C5	..	..	A3	4,5
MAS	Eucalyptus aff. cylindriflora Maiden & Blakely (MAB 1840)	...	..	..	..	..	..	A2	..	..	..	1
MAS	Eucalyptus decipiens Endl.	...	..	..	..	..	..	B4	..	..	..	4
MAS	Eucalyptus deflexa Brooker	P..	3VC	..	..	..	..	B4	..	..	..	2
ST	Eucalyptus dielsii C. Gardner	..P	3VC	..	..	..	..	C5	..	..	..	2
ST	Eucalyptus diptera C.R.P. Andrews	AA.	..	..	..	..	..	C5	..	..	B5	2
ST	Eucalyptus aff. diptera C.R.P. Andrews A (MAB 2980)	...	..	..	..	..	..	C5	..	..	..	1
ST	Eucalyptus aff. diptera C.R.P. Andrews B (MAB 2317)	...	2R	..	..	..	..	C4	..	..	..	5
MAS	Eucalyptus discreta Brooker	...	3RC	..	..	..	..	B5	..	..	..	2,5
MAS	Eucalyptus aff. discreta Brooker (MAB 4472)	..P	..	..	..	..	..	A3	..	..	..	1
ST	Eucalyptus eremophila (Diels) Maiden	AAA	..	..	..	C5	D5	E6	..	..	C4	4,5
MAS	Eucalyptus falcata Turcz.	...	..	..	..	..	..	C4	..	..	..	4
ST	Eucalyptus flocktoniae (Maiden) Maiden	AAA	..	..	..	..	..	C4	D5	..	..	6
MAS	Eucalyptus foecunda Schauer	A.P	..	..	..	C3	C5	C5	..	..	..	6
MAS	Eucalyptus foecunda Schauer ssp. A (MAB 2650)	..P	..	..	..	..	..	..	..	A3	..	2
MAS	Eucalyptus forrestiana Diels ssp. forrestiana	..A	3VC	..	..	..	..	C5	..	..	B2	2
MAS	Eucalyptus forrestiana Diels ssp. dolichorrhyncha Brooker	..P	2EC	..	..	..	..	B4	..	..	..	1
MAS	Eucalyptus forrestiana Diels ssp. stoatei C.J. Robinson	...	2E	..	..	..	..	B5	..	..	..	3
MAS	Eucalyptus gardneri Maiden	...	..	..	..	..	..	B3	..	..	A5	4
DT	Eucalyptus kearsellii Maiden & Blakely	..A	..	..	..	..	..	D5	..	..	..	2,3
MAS	Eucalyptus gracilis F. Muell.	..P	..	..	..	..	..	C5	..	..	..	6
MAS	Eucalyptus aff. gracilis F. Muell. A (MAB 2564)	...	..	..	..	..	..	C5	..	..	..	1
MAS	Eucalyptus aff. gracilis F. Muell. B (MAB 4021)	..P	..	..	..	..	..	B2	..	..	..	1
MAS	Eucalyptus grossa F. Muell. ex Benth.	..AP	..	..	..	..	..	C5	..	..	..	2,5
MAS	Eucalyptus halophila D.J. Carr & S.C.M. Carr	..P	2VC	..	..	..	..	B5	..	..	B5	2
MAS	Eucalyptus incrassata Labill.	PAA	..	..	..	..	..	C4	D5	..	C4	6

Appendix 1 (continued). Flora List

LF			RES	LANDFORM										DIS	
			FPS	CS	B	D	F1	F2	G	L	M	S			
MAS	Eucalyptus	lehmannii (Schauer)Benth.	..P	..	..	..	..	..	C5	..	..	..	2,3	
MAS	Eucalyptus	leptocalyx Blakely	..P	..	..	..	B4	D5	..	..	C4	C5	2,3	
MT	Eucalyptus	longicornis (F. Muell.)F. Muell. ex Maiden	A.P	..	..	..	..	..	C5	..	..	..	2,5	
ST	Eucalyptus	aff. melanoxylon Maiden A (MAB 1815)	...	..	..	..	..	..	B4	..	..	..	2	
ST	Eucalyptus	aff. melanoxylon Maiden B (MAB 1838)	...	..	..	..	..	..	A3	..	..	..	2	
MAS	Eucalyptus	merrickiae Maiden & Blakely	...	3V	..	..	..	..	C4	..	B5	..	2	
MAS	Eucalyptus	micranthera F. Muell. ex Benth.	P.P	..	..	..	..	..	C4	..	..	A2	2,3	
MAS	Eucalyptus	aff. micranthera F. Muell. ex Benth. (MAB 1146)	..PP	2K	..	..	..	..	..	B4	..	..	2	
MAS	Eucalyptus	nutans F. Muell.	...	2RC	..	..	..	..	..	..	..	A4	3	
MT	Eucalyptus	occidentalis Endl. var. occidentalis	P.P	..	..	D6	..	..	C5	..	..	..	4	
MAT	Eucalyptus	oleosa F. Muell. ex Miq. var. obtusa C. Gardner	...	..	..	..	..	..	B3	..	..	..	4,5	
MAT	Eucalyptus	oleosa F. Muell. ex Miq. var. oleosa	..A.	..	..	..	..	..	C5	..	..	..	6	
ST	Eucalyptus	ovularis Maiden & Blakely	..P.	3VC	..	..	..	..	..	B5	..	..	2	
MAS	Eucalyptus	aff. pachyloma Benth. (KRN 8155)	...	..	..	..	..	..	..	..	..	A4	1	
MAS	Eucalyptus	pileata Blakely	..AA.	..	..	..	..	..	..	C4	..	..	4,5	
ST	Eucalyptus	platypus Hook. var. platypus	..P	..	..	..	..	..	..	D5	..	..	4	
MAS	Eucalyptus	redunca Schauer	..APA	..	..	C3	..	D4	D4	D3	..	..	4	
MAS	Eucalyptus	aff. redunca Schauer sp. A (MAB 1949)	..P	..	..	..	..	..	..	C3	..	..	4	
MAS	Eucalyptus	rugosa R. Br. ex Blakely	...	..	..	..	..	..	A3	..	..	..	6	
MT	Eucalyptus	salmonophloia F. Muell.	..AA.	..	..	..	..	..	..	C6	..	..	4,5	
ST	Eucalyptus	salubris F. Muell.	P.P	..	..	..	..	..	..	D5	..	..	4,5	
MAS	Eucalyptus	scyphocalyx (F. Muell. ex Benth.) Maiden & Blakely	...	..	..	..	..	..	..	D5	..	..	4,5	
ST	Eucalyptus	sheathiana Maiden	..APP	..	..	..	..	..	..	A5	..	..	2,5	
ST	Eucalyptus	spathulata Hook. ssp. spathulata	...	..	..	..	..	..	..	..	..	A4	4	
MAS	Eucalyptus	spathulata Hook. ssp. grandiflora (Benth.)L. Johnson & Blaxell	...	..	..	..	..	..	..	D5	..	..	A3	4
MAS	Eucalyptus	tetragona (R. Br.)F. Muell.	..PAA	..	..	..	..	..	E5	..	..	D3	C5	4
MAS	Eucalyptus	tetragona (R. Br.)F. Muell. ssp. A (MAB 1375)	..P	..	..	..	..	..	..	D5	..	..	..	2
MAS	Eucalyptus	tetraptera Turcz.	..P	..	..	..	..	..	..	D4	..	..	B5	2,3
DT	Eucalyptus	torquata Luehm.	...	..	..	..	..	..	..	A2	..	..	..	5
MAS	Eucalyptus	transcontinentalis Maiden	..AAA	E5	B4	C4	6
MAS	Eucalyptus	aff. transcontinentalis Maiden (MAB 3551)	...	..	..	..	..	..	..	A3	..	..	..	2,5
MAS	Eucalyptus	uncinata Turcz.	..PAA	..	..	..	..	D4	D5	B2	..	B3	C4	4,5
MAS	Eucalyptus	sp. A (MAB 1654)	..P	..	..	..	..	..	..	C5	..	..	..	1
MAS	Eucalyptus	sp. B (MAB 1915)	..P	..	..	..	..	..	..	..	..	C5	..	1
MAS	Eucalyptus	sp. C (MAB 4597)	..P	..	..	..	..	..	..	B5	..	..	..	1
MAS	Eucalyptus	sp. D (MAB 3135)	...	2V	..	..	..	..	..	B4	..	..	..	1
MAS	Eucalyptus	sp. E (MAB 1419)	...	..	..	..	..	..	..	C2	..	..	..	2
ST	Eucalyptus	sp. F (MAB 1251)	...	..	..	..	..	..	..	A2	..	..	..	1
MAS	Eucalyptus	sp. G (KRN 9772)	...	1E	..	..	..	..	..	..	..	A3	..	1
MAS	Eucalyptus	sp. H (KRN 8285)	...	2E	..	..	..	..	..	..	..	A3	..	2
MAS	Eucalyptus	sp. I (KRN 9717)	...	1E	..	..	..	..	..	..	..	..	A3	1
MAS	Eucalyptus	sp. J (KRN 9715)	...	1E	..	..	..	..	..	..	..	..	A2	1
LS	Kunzea	affinis S. Moore	...	..	..	..	..	..	..	..	B3	..	B3	2,3
MS	Kunzea	baxteri (Klotzsch)Schauer	..P	3RC	..	..	..	..	..	..	C4	..	..	3
SS	Kunzea	micromera Schauer	...	..	..	..	..	..	..	..	..	..	B3	2,3
MS	Kunzea	preissiana Schauer	...	..	..	..	..	..	..	..	C4	..	..	2,3
TS	Leptospermum	erubescens Schauer	..AAP	..	..	B4	B4	..	..	E4	..	C3	4,5	
LS	Leptospermum	maxwellii S. Moore	...	3R	..	..	..	..	..	..	A2	..	..	2
SS	Leptospermum	oligandrum Turcz.	..P	..	..	..	..	..	..	..	..	B2	..	2,3
SS	Leptospermum	aff. roei Benth. (MAB 2161)	..AAA	..	..	..	..	C3	..	C3	..	..	..	4,5
SS	Leptospermum	spinescens Endl.	..PPP	..	..	..	..	..	..	..	..	C2	C3	4,5
SS	Leptospermum	sp. (MAB 2262)	...	..	..	..	..	..	..	..	..	..	A2	1
DS	Lhotskyia	acutifolia Lindley	..P	..	..	..	..	..	..	B3	..	..	..	4
MS	Melaleuca	acerosa Schauer	...	..	..	..	..	..	..	..	..	..	A3	4
LS	Melaleuca	acuminata F. Muell.	..AAA	..	..	..	..	..	..	B3	..	..	B3	6
MS	Melaleuca	brevifolia Turcz.	..P	..	..	..	..	..	..	..	D4	..	A6	2,3
MS	Melaleuca	calycina R. Br.	..P	..	..	..	..	..	..	D3	D4	..	B2	2,3
MS	Melaleuca	aff. calycina R. Br. (MAB 3458)	..P	..	..	..	..	..	..	A3	..	..	..	2
MS	Melaleuca	cardiophylla F. Muell.	..P	..	..	..	..	..	..	D3	..	..	A2	2,3
SS	Melaleuca	cliffortioides Diels	..P	3RC	..	..	..	..	..	..	D4	..	..	2,3
DS	Melaleuca	conferta Benth.	..P.	..	..	..	..	..	..	..	..	..	A1	4
DS	Melaleuca	aff. conferta Benth. (MAB 2438)	...	..	..	..	..	..	..	..	..	..	A1	2
SS	Melaleuca	cordata Turcz.	..AAP	..	..	..	..	D3	C3	..	..	..	C3	4,5
TS	Melaleuca	cucullata Turcz.	..P	..	..	..	..	..	..	..	C4	..	..	4,5
SS	Melaleuca	cuneata Turcz.	..A.P	..	..	..	..	..	..	..	..	..	B3	4
TS	Melaleuca	cuticularis Labill.	..P.A	..	..	..	..	..	..	..	D4	..	C3	4
MS	Melaleuca	aff. cuticularis Labill. (MAB 4482a)	..PP	..	..	..	..	..	..	B3	..	..	..	1
MS	Melaleuca	cymbifolia Benth.	..P	..	..	..	..	..	..	B3	..	..	..	2,5
TS	Melaleuca	aff. cymbifolia Benth. (MAB 2799)	..PPP	..	..	..	..	..	..	A2	..	..	..	2
LS	Melaleuca	eleuterostachya F. Muell.	..AAP	..	..	B1	C3	C3	..	..	..	..	B2	6
MS	Melaleuca	elliptica Labill.	..PAA	..	..	..	..	..	..	..	..	D4	..	4
MS	Melaleuca	fulgens R. Br.	..AA	..	..	..	..	..	..	..	..	C3	..	4

Appendix 1 (continued). Flora List

LF		RES	LANDFORM										DIS
			FPS	CS	B	D	F1	F2	G	L	M	S	
SS	Melaleuca glaberrima F. Muell.	.PA	..	..	..	..	C3	C4	..	..	..	B3	4
TS	Melaleuca hamulosa Turcz.	P.P	..	..	..	..	C3	..	..	..	..	..	4
MS	Melaleuca holosericea Schauer var. holosericea	AA.	..	..	..	B2	..	D4	..	..	..	..	2,3
MS	Melaleuca aff. holosericea Schauer (MAB 3060)	...	..	..	..	..	A2	..	..	..	..	..	2
MS	Melaleuca aff. lanceolata Otto (MAB 2546)	...	..	..	..	..	A4	..	..	..	..	..	2,5
MS	Melaleuca lateralis Turcz.	PP.	..	..	..	..	D4	..	..	B2	..	..	4
MS	Melaleuca lateriflora Benth.	AAA	..	..	..	..	D4	..	..	..	C3	..	4,5
SS	Melaleuca leptospermoides Schauer	P.P	..	..	..	..	..	..	..	..	C3	B3	4
SS	Melaleuca aff. leptospermoides Schauer (MAB 2820)	...	..	..	..	..	A2	..	..	..	..	..	2
LS	Melaleuca aff. nesophila F. Muell. (KRN 8284)	..A	3RC	..	..	C3	..	..	..	..	C3	..	1
TS	Melaleuca pauperiflora F. Muell.	APA	..	..	..	..	D4	..	..	..	..	..	6
TS	Melaleuca aff. pauperiflora F. Muell. (KRN 7694)	...	..	..	..	..	D4	..	..	..	..	..	2
DS	Melaleuca pentagona Labill. var. pentagona	A..	..	..	..	C3	..	..	..	..	B5	..	4
MS	Melaleuca pentagona Labill. var. subulifolia Schauer	...	..	..	..	D4	..	..	..	..	..	..	3
SS	Melaleuca pulchella R. Br.	..P	..	..	..	B3	..	..	..	D3	..	..	2,3
MS	Melaleuca pungens Schauer	..P	..	..	..	..	..	..	..	..	C3	..	4
MS	Melaleuca aff. pungens Schauer (MAB 3842)	AAP	..	..	..	..	..	..	..	..	A2	..	2
TS	Melaleuca quadrifaria F. Muell.	P.P	..	..	..	..	D4	..	..	..	..	..	2,5
DS	Melaleuca scabra R. Br.	AAA	..	..	..	D4	D4	C3	..	A3	C4	..	4
DS	Melaleuca aff. scabra R. Br. (MAB 2552)	.AP	..	..	..	..	..	..	..	..	B4	..	4
MS	Melaleuca sparsiflora Turcz.	...	2K	..	..	C3	..	..	..	..	..	..	4
MS	Melaleuca striata Labill.	..P	..	..	..	..	..	..	..	C4	..	..	2,3
DS	Melaleuca suberosa (Schauer)C. Gardner	...	..	..	..	B2	..	..	..	..	..	..	2,3
MS	Melaleuca subfalcata Turcz.	P.P	..	..	..	B3	C3	..	..	B3	..	..	2,3
SS	Melaleuca subtrigona Schauer	..P	..	..	..	..	..	C3	..	..	..	..	2,5
MS	Melaleuca tenella Benth.	..P	..	..	..	A2	..	..	..	..	..	..	2,3
MS	Melaleuca rhymoides Labill.	..P	..	..	..	C3	..	..	..	B3	..	..	2,3
MS	Melaleuca thyoides Turcz.	P.P	..	..	..	C3	..	..	D4	..	..	..	4,5
MS	Melaleuca aff. thyoides Turcz. (MAB 1836)	PP.	..	..	..	..	B2	..	..	..	..	..	2
MS	Melaleuca uncinata R. Br.	AAA	..	..	..	C3	D4	D4	C4	C3	B4	C3	6
MS	Melaleuca undulata Benth.	P..	..	..	..	A3	B3	..	..	A2	..	..	4
MS	Melaleuca aff. undulata Benth. (KRN 6432)	PAA	..	..	..	..	D4	..	..	..	..	..	2
MS	Melaleuca urceolaris F. Muell. ex Benth.	..P	..	..	..	..	D4	..	..	..	..	..	4
MS	Melaleuca aff. urceolaris F. Muell. ex Benth. (MAB 4496)	..P	..	..	..	..	D4	..	..	..	..	..	1
MS	Melaleuca sp. A (MAB 4516)	..P	..	..	..	..	D4	..	..	..	..	..	1
MS	Melaleuca sp. B (MAB 2795)	...	..	..	..	..	C4	..	..	..	..	..	1
MS	Melaleuca sp. C (MAB 4581)	..P	3KC	..	..	..	C3	..	..	..	..	..	1
MS	Melaleuca sp. D (MAB 1467)	...	..	..	..	..	B2	..	..	..	..	..	1
SS	Melaleuca sp. E (MAB 1863)	..P	..	..	..	..	C3	..	..	..	..	..	2
MS	Melaleuca sp. F (MAB 2583)	...	..	..	..	..	B2	..	..	..	..	..	2
MS	Melaleuca sp. G (MAB 4551)	..P	..	..	..	..	C4	..	..	..	..	..	2
MS	Melaleuca sp. H (MAB 3921)	...	..	..	..	..	B3	..	..	..	..	..	2
MS	Melaleuca sp. I (MAB 4317)	..P	..	..	..	..	C4	..	..	..	..	..	2
MS	Melaleuca sp. J (MAB 4499)	..P	..	..	..	..	C4	..	..	..	..	..	2
MS	Melaleuca sp. K (KRN 7962)	...	..	..	..	B2	..	..	..	..	..	..	2
MS	Melaleuca sp. L (KRN 9774)	...	..	..	..	..	..	..	..	A3	..	..	3
MS	Melaleuca sp. M (KRN 9783)	...	..	..	..	..	..	..	..	A4	..	..	3
SS	Melaleuca sp. N (KRN 8186)	...	1E	..	..	A3	..	..	..	..	..	..	1
SS	Micromyrtus elobata (F. Muell.)Benth.	..P	..	..	..	C3	C3	..	..	..	..	..	2,3
SS	Micromyrtus imbricata Benth.	..P	..	..	..	..	C3	..	..	..	..	..	2
SS	Micromyrtus obovata (Turcz.)J.W. Green	AAA	..	..	..	..	..	..	..	..	C2	..	4,5
DS	Micromyrtus racemosa Benth.	..P	..	..	..	..	C3	..	..	..	..	..	2,5
SS	Pericalymma ellipticum (Endl.)Schauer	..P	..	..	..	D4	C4	..	..	..	..	..	4
MS	Phymatocarpus maxwellii F. Muell.	PAA	..	..	..	..	..	..	..	E5	..	..	2,3
SS	Rinzia communis M.E. Trudgen	..P	..	..	..	B2	..	..	..	B2	..	..	2
SS	Rinzia sp. A (MAB 4433)	..P	..	..	..	A2	..	..	..	..	..	..	2
MS	Thryptomene appressa C.R.P. Andrews	P..	..	..	..	..	C3	..	..	..	..	..	5
MS	Thryptomene australis Endl.	PAP	..	..	..	..	C3	D4	..	..	..	..	2,5
SS	Thryptomene saxicola (Cunn. ex Hook.)Schauer	...	..	..	..	..	..	B5	..	..	..	..	4
DS	Verticordia acerosa Lindley	..P	..	..	..	C3	..	..	..	..	..	..	4
DS	Verticordia brownii (Desf.)DC.	..A	..	..	..	A3	..	..	..	B4	..	..	4,5
DS	Verticordia chrysanthia Endl.	A.A	..	..	..	..	C3	C3	..	..	..	..	4
DS	Verticordia densiflora Lindley	A.P	..	..	..	C3	..	..	..	D3	..	..	4
DS	Verticordia aff. drummondii Schauer (MAB 2868)	..P	3RC	..	..	..	..	..	..	A2	..	..	2
DS	Verticordia endlicheriana Schauer	AA.	..	..	..	B3	..	..	..	A3	C3	..	4
DS	Verticordia grandiflora Endl.	..P	..	..	..	B2	..	..	..	..	..	..	4
DS	Verticordia humilis Benth.	P.P	..	..	..	A2	..	..	..	A2	..	..	2,3
DS	Verticordia insignis Endl.	PPA	..	..	..	C3	..	..	..	..	..	..	4,5
DS	Verticordia mitchelliana C. Gardner	.P.	..	..	..	..	B2	..	..	..	..	..	2,5
DS	Verticordia oxylepis Turcz.	...	..	..	..	C3	..	..	..	..	..	..	2,3
DS	Verticordia picta Endl.	PA.	..	..	..	A2	..	..	..	B3	..	..	4
DS	Verticordia plumosa (Desf.)Druce	.AA	..	..	..	B3	B3	..	..	B2	..	..	4
DS	Verticordia roei Endl.	AAA	..	..	..	C3	..	..	..	B4	..	..	4,5
275	ONAGRACEAE												
AB	*Oenothera stricta Lebed. ex Link	...	..	..	..	..	A3	..	..	..	..	..	7

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
276	HALORAGACEAE													
HP	Glischrocaryon aureum (Lindley)Orch. var. angustifolium (Nees)Orch.	P.P	..	..	..	B1	D3	..	..	B2	..		4,5
HP	Glischrocaryon flavescens (J. Drumm. ex Hook.) Orch.	...	..	..	..	B2	B2	..	..	..	..		6
AS	Gonocarpus nodulosus Nees	...	..	..	..	..	..	C3	..	..	..		4,5
DS	Gonocarpus trichostachyus (Benth.)Orch.	...	3K	..	..	..	..	..	..	..	B3		4
DS	Gonocarpus sp. A (KRN 9759)	...	..	..	..	A2	..	..	..	..	..		1
DS	Haloragis sp. A (KRN 8269)	...	1E	..	..	..	..	..	..	..	A2		1
DS	Haloragodendron glandulosum Orch.	...	..	..	..	..	..	..	..	..	A2		2,3
HY	Myriophyllum petraeum Orch.	..P	..	..	..	..	..	A4	..	..	..		2
281	APIACEAE													
AS	Daucus glochidiatus (Labill.)Fischer, C. Meyer & Ave-Lall.	PP.	..	..	..	..	..	B2	..	..	..		6
AS	Hydrocotyle alata A. Rich.	...	..	..	..	..	..	A2	..	..	..		4
AS	Hydrocotyle diantha DC.	...	..	..	..	..	..	B3	..	..	..		6
AS	Hydrocotyle medicaginoides Turcz.	..P	3RC	..	..	..	..	..	..	B3	..		6
AS	Hydrocotyle sp. A (MAB 4419)	..P	..	..	..	..	..	A2	..	..	..		1
DS	Platysace compressa (Labill.)Norman	..P	..	..	..	..	..	A2	..	..	..		4
DS	Platysace effusa (Turcz.)Norman	AAA	..	..	..	C3	..	C2	..	A2	D2		4,5
DS	Platysace maxwellii (F. Muell.)Norman	A.P	..	..	..	C3	..	..	..	..	..		2
AS	Trachymene anisocarpa (Turcz.)B.L. Burtt	..P	..	..	..	A2	..	..	..	..	..		6
AS	Trachymene croniniana (F. Muell.)T. Durand	...	3V	..	..	..	..	A2	..	..	..		3
AS	Trachymene cyanopetala (F. Muell.)Benth.	.AP	..	..	..	..	..	A2	..	..	..		6
AS	Trachymene ornata (Endl.)Druce var. ornata	.AA	..	..	..	B3	..	A2	B3	..	..		6
AS	Trachymene pilosa Smith	PA.	..	..	..	..	..	B2	..	..	..		6
DS	Xanthosia huegelii (Benth.)Steudel	...	..	..	..	..	..	..	..	B1	..		4
DS	Xanthosia pusilla Bunge	...	..	..	..	..	..	B2	..	..	..		6
288	EPACRIDACEAE													
DS	Acrotriche cordata (Labill.)R. Br.	...	..	..	..	..	..	..	..	B1	..		6
DS	Andersonia macranthera F. Muell.	..P	2EC	..	..	B3	..	..	..	B2	..		3
DS	Andersonia micrantha R. Br.	P..	..	..	..	..	..	..	..	A1	..		3
DS	Andersonia parvifolia R. Br.	..P	..	..	..	C3	..	..	..	C3	..		2,3
DS	Astroloma drummondii Sonder	...	..	..	..	..	..	..	..	A1	..		3
DS	Astroloma epacridis (DC.)Druce	PP.	..	..	..	..	..	A1	..	..	..		4
DS	Astroloma microphyllum Stschegl.	..P	..	..	..	..	..	A1	..	..	..		3
DS	Astroloma pallidum R. Br.	...	..	..	..	C3	..	..	..	..	..		4
DS	Astroloma aff. prostratum R. Br. (MAB 1176)	...	..	..	..	..	..	A1	..	..	..		2
DS	Astroloma tectum R. Br.	...	..	..	..	..	..	..	..	A1	..		3
DS	Brachyloma concolor (F. Muell.)C. Gardner	P..	..	..	..	..	..	C3	..	..	..		2,3
DS	Brachyloma sp. A (KRN 5521)	...	3K	..	..	A1	A1	..	..	..	..		2
SS	Coleanthera myrtoides Stschegl.	PP.	..	..	..	..	..	B1	..	..	..		4,5
SS	Conostephium drummondii (Stschegl.)C. Gardner	PPP	3RC	..	..	B2	D4	..	..	A1	..		4
SS	Conostephium minus Lindley	..P	..	..	..	..	..	..	..	A2	..		4
SS	Conostephium roei Benth. (MAB 3492)	PPP	..	..	..	B2	..	C4	..	..	..		4
SS	Conostephium sp. A (MAB 3063)	...	3K	..	..	..	..	B2	..	..	..		1
SS	Conostephium sp. B (MAB 1656)	...	..	..	..	..	..	B2	..	..	..		1
DS	Leucopogon aff. allittii F. Muell. (MAB 1482)	...	2E	..	..	B2	B2	..	..	..	..		1
DS	Leucopogon assimilis R. Br.	...	..	..	..	A2	..	..	..	..	..		4
DS	Leucopogon bossiaea F. Muell.	..P	3KC	..	..	B2	..	..	..	..	..		2,3
DS	Leucopogon brevicuspis Benth.	..P	3KC	..	..	C3	..	C3	..	..	..		4
DS	Leucopogon aff. breviflorus F. Muell. (MAB 1207)	...	..	..	..	..	..	A2	..	..	..		2,3
DS	Leucopogon concinnus Benth.	...	..	..	..	C2	..	..	..	B2	..		2,3
DS	Leucopogon conostephioides DC.	P.P	..	..	..	C4	..	..	..	..	..		4
DS	Leucopogon aff. conostephioides DC. (MAB 1085)	...	..	..	..	..	..	A2	..	..	..		2,3
DS	Leucopogon corynocarpus Sonder	P.P	..	..	..	B2	..	..	..	..	..		2,3
DS	Leucopogon crassifolius Sonder	...	..	..	..	A2	..	..	..	..	..		2,3
SS	Leucopogon cuneifolius Stschegl.	.PP	..	..	..	..	..	B2	..	B1	..		2,3
DS	Leucopogon dielsianus E. Pritzel	P.P	..	..	..	B2	..	..	..	..	..		2,3
DS	Leucopogon fimbriatus Stschegl.	AA.	..	..	..	B2	..	..	..	..	..		4
SS	Leucopogon flavescens Sonder var. brevifolius Benth.	...	..	..	..	..	..	..	..	D3	B2		2,5
DS	Leucopogon aff. hamulosus E. Pritzel (MAB 1211)	.A.	..	..	..	B2	..	..	..	..	C2		3
DS	Leucopogon minutifolius W. Fitzg.	..A	..	..	..	D4	..	C3	..	..	..		2,5
MS	Leucopogon obovatus (Labill.)R. Br.	...	..	..	..	..	..	A2	..	..	..		4
DS	Leucopogon aff. obovatus (Labill.)R. Br. (MAB 1125)	...	..	..	..	A2	..	..	..	..	..		1
DS	Leucopogon opponens F. Muell.	...	3R	..	..	A2	..	..	..	..	..		3
DS	Leucopogon aff. ovalifolius Sonder (MAB 1482)	...	..	..	..	A2	..	..	..	..	..		1
DS	Leucopogon aff. pulchellus Sonder (MAB 2738)	...	..	..	..	..	..	A2	..	..	..		1
SS	Leucopogon rubicundus F. Muell. ex Benth.	..A	..	..	..	..	..	B4	..	..	..		2
SS	Leucopogon woodsii F. Muell.	...	3RC	..	..	B2	..	..	..	..	..		2,3
DS	Leucopogon sp. A (MAB 3962)	...	..	..	..	..	..	B2	..	..	..		1
DS	Leucopogon sp. B (MAB 3936)	...	..	..	..	..	..	A2	..	..	..		1
DS	Leucopogon sp. C (MAB 3920)	...	..	..	..	..	..	B2	..	..	..		1
DS	Leucopogon sp. D (MAB 3447)	...	..	..	..	C3	..	..	..	..	..		1
DS	Leucopogon sp. E (MAB 3708)	...	1E	..	..	..	..	A2	..	..	..		1

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
DS	Leucopogon sp. F (KRN 8045)	...	..	..	..	..	..	..	..	..	B2	2
DS	Leucopogon sp. G (KRN 8123)	...	1E	..	..	..	..	..	..	..	A2	1
DS	Leucopogon sp. H (KRN 8148)	...	..	..	..	..	..	..	..	..	A2	2
DS	Leucopogon sp. I (KRN 8213)	...	1E	..	..	A2	..	..	..	..	..	1
SS	Leucopogon sp. J (KRN 5885)	...	..	..	..	..	..	..	C1	..	..	4,5
DS	Leucopogon sp. K (KRN 9791)	...	..	..	..	..	..	..	..	A1	..	1
DS	Leucopogon sp. L (KRN 9794)	...	..	..	..	..	..	..	..	A1	..	1
DS	Leucopogon sp. M (KRN 8173)	...	1V	..	B2	..	..	..	..	..	..	1
DS	Leucopogon sp. N (KRN 8283)	...	3V	A3	..	..	..	..	..	..	..	4,5
SS	Lysinema ciliatum R. Br.	AAA	..	..	E4	C3	C4	..	D2	D3	..	4
SS	Monotoca leucantha E. Pritzel	..P	..	..	..	..	C3	..	..	..	..	4
DS	Monotoca oligarrhenoides F. Muell.	...	..	..	..	..	..	..	..	B2	..	2
DS	Monotoca tamariscina F. Muell.	...	..	..	..	A2	..	..	..	..	..	3
DS	Oligarrhena micrantha R. Br.	...	..	..	..	C3	..	..	..	B1	..	4
DS	Styphelia intertexta A.S. George	P.P	..	..	..	C3	B2	..	..	..	..	4,5
SS	Styphelia pulchella (Stschegl.)Druce	...	..	..	..	A2	..	..	..	..	..	2,3
293	PRIMULACEAE													
AS	*Anagallis arvensis L.	.AP	..	..	..	..	..	D2	..	..	..	7
DS	Samolus repens (Forster & G. Forster)Pers.	..P	..	..	..	..	..	..	B3	..	..	6
302	LOGANIACEAE													
SS	Logania buxifolia F. Muell.	P.P	..	..	..	D4	..	..	..	..	..	2,3
DS	Logania campanulata R. Br.	...	..	..	..	..	..	..	..	A1	..	4
DS	Logania micrantha Benth.	PP.	..	..	..	C2	..	..	..	A1	..	4
SS	Logania stenophylla F. Muell.	..P	..	..	..	..	D3	..	..	..	..	3
SS	Logania aff. stenophylla F. Muell. (MAB 2174)	...	..	..	..	..	..	..	..	A2	..	1
AS	Mitrasacme paradoxa R. Br.	.P.	..	..	..	..	..	C2	..	A3	..	6
303	GENTIANACEAE													
AS	*Centaurium spicatum (L.)Fritsch ex Janchen	P..	..	..	..	..	..	B2	..	..	..	7
AS	Sebaea ovata (Labill.)R. Br.	...	..	..	..	..	..	A2	..	A2	..	6
303A	MENYANTHACEAE													
HP	Villarsia parnassifolia (Labill.)R. Br.	..P	..	..	B2	..	..	..	..	..	..	4
304	APOCYNACEAE													
LS	Alyxia buxifolia R. Br.	PAP	..	..	..	..	D4	..	..	..	..	6
307	CONVOLVULACEAE													
CL	Convolvulus erubescens Sims	...	..	..	..	..	A1	..	..	..	..	6
MP	Wilsonia humilis R. Br.	PAA	..	..	..	..	B3	..	D4	..	..	6
MP	Wilsonia rotundifolia Hook.	P.P	3RC	..	..	..	..	..	B2	..	..	6
310	BORAGINACEAE													
SS	Halgania andromedifolia Behr & F. Muell.	PAP	..	..	..	..	D4	..	..	..	..	4,5
SS	Halgania aff. andromedifolia Behr & F. Muell. (MAB 1876)	...	..	..	..	..	B2	..	..	..	..	2
DS	Halgania aff. preissiana Lehm. (MAB 1513)	...	..	..	..	..	A2	..	..	..	..	2
DS	Halgania sp. A (MAB 3547b)	...	2V	..	..	..	A2	..	..	..	..	2
DS	Halgania sp. B (MAB 2825)	...	..	..	..	..	B2	..	..	..	..	2
AS	Heliotropium sp. A (KRN 6982)	...	2R	..	..	..	..	B2	..	..	..	2,5
311A	CHLOANTHACEAE													
DS	Dicrastylis parvifolia F. Muell.	...	..	..	..	..	A2	..	..	..	..	5
SS	Lachnostachys ferruginea Hook.	...	..	..	..	..	C3	..	..	..	..	4
SS	Pityrodia axillaris (Endl.)Druce	...	..	..	..	..	..	..	..	A3	..	4,5
313	LAMIACEAE													
SS	Hemigenia eutaxioides C.R.P. Andrews	..P	..	..	..	..	D3	..	..	..	..	2,5
SS	Hemigenia aff. eutaxioides C.R.P. Andrews (MAB 1755)	...	3K	..	..	..	D3	..	..	A2	..	2
SS	Hemigenia teretiuscula F. Muell.	...	..	..	..	..	..	..	..	A2	..	2,5
SS	Hemigenia sp. A (MAB 1633)	...	..	..	..	..	..	..	..	A2	..	1
SS	Microcoyrs barbata R. Br.	..P	..	..	..	..	..	..	..	B3	..	4
DS	Microcorys glabra (Bartling)Benth.	P..	..	..	..	..	A2	..	..	B2	..	4
SS	Microcorys virgata R. Br.	...	3K	..	..	..	A2	..	..	..	..	2,3
DS	Prostanthera baxteri Cunn. ex Benth.	...	..	..	..	..	A2	..	..	..	..	6
DS	Prostanthera serpyllifolia (R. Br.)Briq. ssp. microphylla (R. Br.) B.J. Conn	PPP	..	..	..	..	D3	..	..	..	..	6
DS	Prostanthera sp. A (MAB 1193)	...	1E	..	..	..	A2	..	..	..	..	1
DS	Teucrium myriocladum Diels	...	..	..	..	..	A2	..	..	..	..	2
AS	Teucrium sessiliflorum Benth.	...	..	..	..	..	A3	..	..	..	..	6
SS	Westringia cephalantha F. Muell.	P..	..	..	..	..	A3	..	..	..	..	4,5
DS	Westringia dampieri R. Br.	...	..	..	..	..	D4	..	..	..	..	6
DS	Westringia aff. dampieri R. Br. (MAB 4476)	..P	..	..	..	..	A2	..	..	..	..	1
DS	Westringia rigida R. Br.	APP	..	..	..	..	B4	..	..	..	..	6

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
315	SOLANACEAE													
SS	Anthocercis genistoides Miers	.P.	..	..	..	..	..	..	..	A1	..	2,5	
SS	Anthocercis viscosa R. Br. ssp. caudata Haegi	...	..	..	..	..	..	D3	..	..	..	2,3	
SS	Cyphanthera microphylla Miers	A.P	..	..	..	..	..	D3	..	..	..	2,5	
HP	Solanum capsiciforme (Domin)Baylis	...	..	..	..	..	..	C3	..	..	..	6	
HP	Solanum hoplopetalum Bitter & Summerh.	P..	..	..	..	..	..	C3	..	..	..	6	
DS	*Solanum nigrum L.	...	..	..	..	..	..	C3	..	..	..	7	
SS	Solanum simile F. Muell.	...	..	..	..	..	..	C3	..	..	..	6	
HP	Solanum symonii H. Eichler	..P	..	..	..	..	..	C3	..	..	..	6	
316	SCROPHULARIACEAE													
AS	Glossostigma diandrum (L.)Kuntze	...	..	..	..	..	..	A2	..	..	..	6	
323	LENTIBULARIACEAE													
AS	Polypompholyx tenella (R. Br.)Lehm.	..P	..	..	..	..	..	C3	B2	..	..	6	
326	MYOPORACEAE													
MP	Eremophila biserrata Chinn.	...	..	..	A1	..	..	..	..	..	..	2	
LS	Eremophila calorhabdos Diels	P..	..	..	..	B2	..	..	..	..	..	2,5	
SS	Eremophila decipiens Ostenf.	AAP	..	..	..	..	..	D3	..	..	..	6	
DS	Eremophila densifolia F. Muell.	...	..	..	..	B3	..	..	..	..	..	2,3	
MS	Eremophila denticulata F. Muell.	..P	3RC	..	..	..	..	A1	..	..	..	2,3	
MS	Eremophila dichroantha Diels	PAP	3RC	..	..	..	..	C3	..	..	..	2	
MS	Eremophila glabra (R. Br.)Ostenf.	P.P	..	..	..	..	..	D4	..	..	..	6	
LS	Eremophila pachyphylla Diels	APP	..	..	..	..	..	B4	..	..	..	2,5	
MP	Eremophila serpens Chinn.	...	3V	..	..	A2	..	..	..	..	..	2,3	
MP	Eremophila aff. serpens Chinn. (KRN 8180)	...	3E	..	..	..	..	..	..	A1	..	1	
SS	Eremophila sp. A (MAB 2587)	..P	..	..	..	A3	..	..	..	..	..	1	
MS	Myoporum beckeri F. Muell. ex Benth.	PP.	2KC	..	..	..	..	B3	..	..	..	2,3	
DS	Genus indet. (MAB 2851)	...	2E	..	..	..	..	B3	..	..	..	1	
329	PLANTAGINACEAE													
AS	Plantago hispida R. Br.	.AP	..	..	..	..	..	C3	..	..	..	6	
331	RUBIACEAE													
DS	Opercularia vaginata Labill.	PPP	..	..	..	D3	..	..	..	..	..	4,5	
339	CAMPANULACEAE													
AS	*Wahlenbergia capensis (L.)A. DC.	..P	..	..	..	..	..	B2	..	..	..	7	
AS	Wahlenbergia gracilentia Loth.	.A.	..	..	..	C3	..	B2	..	..	..	6	
AS	Wahlenbergia gracilis A. DC.	...	..	..	..	..	..	B2	..	..	..	6	
340	LOBELIACEAE													
AS	Isotoma hypocrateriformis (R. Br.)Druce	.PP	..	..	..	..	..	C3	..	B1	..	4	
AS	Isotoma scapigera (R. Br.)Don	..P	..	..	..	..	..	..	..	B3	..	2,5	
AS	Lobelia rarifolia F. Wimmer	.P.	..	..	..	..	..	..	..	B1	..	4	
341	GOODENIACEAE													
HP	Anthotium rubriflorum F. Muell. ex Benth.	P..	..	..	..	..	..	C2	..	..	..	2,3	
DS	Cooperhookia polygalacea (Vriese)Carolin	..P	..	..	..	..	..	D3	..	..	..	4,5	
DS	Cooperhookia strophilolata (F. Muell.)Carolin	PPP	..	..	..	B2	D3	..	B2	B3	..	6	
DS	Dampiera carinata Benth.	..P	3RC	..	..	..	..	C3	..	..	..	4	
DS	Dampiera cuneata R. Br.	...	..	..	..	..	..	B2	..	..	..	2,5	
DS	Dampiera fasciculata R. Br.	...	..	..	..	..	..	..	..	A1	..	2,3	
DS	Dampiera lavandulacea Lindley	A.A	..	..	..	..	..	D3	..	..	B2	6	
DS	Dampiera oligophylla Benth. ssp. juncea (Benth.) Rajput & Carolin	...	..	..	..	..	..	C1	..	..	B1 C1	4	
DS	Dampiera parvifolia R. Br.	...	..	..	..	..	..	..	..	C2	..	2,3	
DS	Dampiera sacculata F. Muell. ex Benth.	P..	..	..	..	A2	..	..	..	..	B2	4	
DS	Dampiera tenuicaulis E. Pritzel var. tenuicaulis	...	..	..	..	..	..	..	..	B1	..	4,5	
DS	Dampiera trigona Vriese	...	3R	..	..	..	..	B2	..	..	..	4	
DS	Dampiera sp. A (MAB 4624)	..P	..	..	..	B2	..	..	..	..	..	1	
DS	Dampiera sp. B (KRN 9800)	...	..	..	..	..	..	..	..	A1	..	1	
RP	Goodenia affinis Vriese	P.P	..	..	..	..	..	..	..	A1	..	6	
AS	Goodenia berardiana (Gaudich.)Carolin	PP.	..	..	..	..	..	C3	..	..	..	6	
DS	Goodenia caerulea R. Br.	..P	..	..	..	..	..	..	..	C2	..	4	
DS	Goodenia concinna Benth.	..P	..	..	..	..	..	B2	..	C2	..	4	
SS	Goodenia decursiva W. Fitzg.	...	..	..	..	..	..	B2	..	..	..	2,3	
AS	Goodenia filiformis R. Br. var. filiformis	...	..	..	..	..	..	C3	..	..	..	4	
DS	Goodenia incana R. Br.	...	..	..	..	..	..	..	..	C2	..	4,5	
DS	Goodenia laevis Benth.	P.P	..	..	..	..	..	A2	..	..	..	4	
RP	Goodenia pinnatifida Schldl.	...	..	..	..	..	..	B2	..	..	..	6	
DS	Goodenia pterygosperma R. Br.	...	..	..	..	A2	..	..	..	A2	..	2	
DS	Goodenia scapigera R. Br.	..AP	..	..	..	C3	..	C2	..	B1	..	2	
DS	Goodenia trichophylla (Vriese)Benth.	..P	3RC	..	..	..	..	B2	..	..	..	4	
RP	Goodenia watsonii F. Muell. & Tate	P..	..	..	..	..	..	A2	..	..	..	2	
DS	Goodenia sp. A (MAB 4334)	..P	..	..	..	..	..	B2	..	..	..	1	
DS	Lechenaultia aff. floribunda Benth. (KRN 6523)	P.P	..	..	..	C3	..	..	..	..	..	2	
DS	Lechenaultia formosa R. Br.	...	..	..	..	C3	..	..	..	B2	..	4	

Appendix 1 (continued). Flora List

LF		RES		LANDFORM										DIS
		FPS	CS	B	D	F1	F2	G	L	M	S			
MP	Lechenaultia tubiflora R. Br.	...	..	..	..	..	..	..	..	A1	..	4
DS	Lechenaultia sp. A (KRN 6470)	...	3V	..	..	..	..	..	..	A3	..	2
SS	Scaevola bursariifolia J. Black	.PP	..	..	..	C3	..	..	..	..	..	6
SS	Scaevola myrtifolia (Vriese)Krause	...	..	..	..	D3	..	..	..	..	..	6
DS	Scaevola thesioides Benth. var. filifolia													
	E. Pritzel	...	..	..	B2	..	..	..	..	..	..	4
DS	Scaevola thesioides Benth. var. thesioides	...	..	..	B1	..	..	A1	..	..	..	4
MP	Scaevola sp. A (KRN 9677)	...	1E	..	..	A3	..	..	..	..	..	1
AS	Velleia cynopotamica F. Muell.	...	..	..	..	..	..	B2	..	..	..	6
RP	Velleia trinervis Labill.	...	..	..	..	B2	..	B2	..	..	..	4
343	STYLIDIACEAE													
AS	Levenhookia dubia Sonder	..P	..	..	..	..	..	B3	..	..	..	6
AS	Levenhookia pauciflora Benth.	...	..	..	..	B3	..	..	..	..	..	4
AS	Levenhookia pusilla R. Br.	.PP	..	..	..	C3	..	B2	..	..	..	6
AS	Levenhookia stipitata (Sonder)F. Muell.	PPP	..	..	..	..	..	..	..	B1	..	4
AS	Levenhookia sp. A (MAB 4388)	..P	..	..	..	..	..	A2	..	..	..	1
RP	Stylidium adpressum Benth.	...	..	..	..	C3	..	..	..	..	..	4
RP	Stylidium assimile R. Br.	..A	..	..	..	C3	..	..	..	..	..	3
DS	Stylidium breviscapum R. Br.	PP.	..	..	..	C3	..	..	..	..	..	4,5
DS	Stylidium breviscapum R. Br. var. A (KRN 9763)	...	..	..	..	..	..	A3	..	..	..	3
AS	Stylidium calcaratum R. Br.	.PP	..	..	..	C3	..	..	..	..	..	6
RP	Stylidium caricifolium Lindley ssp. caricifolium	...	..	..	..	..	..	..	..	B1	..	3
DS	Stylidium dielsianum E. Pritzel	.P.	..	..	..	C3	..	..	..	..	..	2,5
RP	Stylidium ecorne (F. Muell. ex R. Erickson & J.H. Willis)P.G. Farrel & S.H. James	...	..	..	..	..	..	A2	..	..	..	4
RP	Stylidium hirsutum R. Br.	...	..	..	..	A2	..	..	..	..	..	3
RP	Stylidium macranthum Carlg.	..P	..	..	..	C3	..	..	..	C1	..	3
RP	Stylidium piliferum R. Br. ssp. piliferum	..P	..	..	..	C3	..	..	..	B2	..	4
DS	Stylidium repens R. Br. var. repens	...	..	..	..	..	..	..	..	A1	..	4
RP	Stylidium schoenoides DC.	..P	..	..	..	B1	..	..	..	..	..	4
RP	Stylidium sp. A (MAB 4311)	..P	..	..	..	A1	..	..	..	..	..	1
345	ASTERACEAE													
AS	Actinobole uliginosum (A. Gray)H. Eichler	.AP	..	..	C2	..	B2	D3	..	..	..	6
AS	Angianthus conocephalus (J. Black)P.S. Short	.PP	..	..	B2	..	..	C3	..	..	..	6
AS	Angianthus preissianus (Steetz)Benth.	..P	..	..	..	..	..	..	..	A4	..	6
AS	Angianthus tomentosus Wendl.	...	..	..	..	..	..	..	..	B3	..	6
AS	*Arctotheca calendula (L.)Levyms	..P	..	..	..	A1	..	B1	..	A2	..	7
AS	Asteridea asteroides (Turcz.)G. Kroner	...	..	..	..	..	..	..	..	A1	..	4
AS	Asteridea athrixioides (Sonder & F. Muell.) G. Kroner	..A	..	..	..	..	..	..	..	C3	..	6
AS	Blennospora drummondii A. Gray	PP.	..	..	..	B2	..	..	..	..	..	6
AS	Brachycome ciliaris (Labill.)Less. var. ciliaris	P.P	..	..	..	..	..	..	..	D3	..	6
DS	Brachycome ciliaris (Labill.)Less. var. lanuginosa (Steetz)Benth.	...	..	..	..	..	..	..	..	A1	..	6
AS	Brachycome exilis Sonder	..P	..	..	..	..	..	..	..	D3	..	6
AS	Brachycome goniocharpa Sonder & F. Muell. ex Sonder	...	..	..	..	A2	..	..	A2	..	..	6
AS	Brachycome lineariloba (DC.)Druce	..P	..	..	..	..	..	..	..	B2	..	6
AS	Brachycome perpusilla (Steetz)J. Black var. perpusilla	.PP	..	..	..	..	..	C3	D3	..	..	6
AS	Brachycome pusilla Steetz	.PA	..	..	..	..	..	C3	D3	..	..	4,5
AS	Calotis hispidula (F. Muell.)F. Muell.	P.	..	..	..	E4	..	..	..	..	..	6
AS	Chrysocoryne pusilla (Benth.)Endl.	PAA	..	..	..	B2	..	..	..	B2	..	6
AS	Chrysocoryne uniflora Turcz.	P.	..	..	..	..	..	..	..	A2	..	4
AS	*Cirsium vulgare (Savi)Ten.	...	..	..	..	A2	..	..	..	..	..	7
AS	*Conyza bonariensis (L.)Cronq.	..P	..	..	..	..	..	A3	..	..	..	7
AS	Cotula cotuloides (Steetz)Druce	..P	..	..	..	..	..	..	..	B3	..	4,5
SS	Cratystylis conocephala (F. Muell.)S. Moore	.A.	..	..	..	..	..	B4	..	..	..	6
AS	*Crepis capillaris (L.)Wallr.	..P	..	..	..	..	..	A2	..	..	..	7
AS	Elachanthus pusillus F. Muell.	...	3K	..	..	..	..	..	..	D3	..	6
AS	Cnaphalium indutum J.D. Hook.	..P	3KC	..	..	..	..	..	..	B3	..	6
AS	*Cnaphalium pensylvanicum Willd.	..P	..	..	..	..	..	A2	..	..	..	7
AS	Cnephosis brevifolia (A. Gray)Benth.	..P	..	..	..	..	..	A2	A2	..	..	5
AS	Cnephosis pygmaea (A. Gray)Benth.	..P	..	..	..	..	..	..	..	D3	..	2,5
DS	Helichrysum lepidophyllum (Steetz)Benth.	PP.	..	..	..	..	..	B2	..	..	C2	4
AS	Helichrysum leucopsidium DC.	..P	..	..	..	A2	..	..	..	..	A2	6
DS	Helichrysum obtusifolium F. Muell. & Sonder ex Sonder	..P	..	..	..	..	..	D3	..	..	C2	6
DS	Helichrysum aff. obtusifolium F. Muell. & Sonder ex Sonder (MAB 4308)	...	..	..	..	..	..	B2	..	..	..	1
SS	Helichrysum occidentale N. Burb.	.P.	..	..	..	A2	..	..	..	..	..	2
AS	Helipterum demissum (A. Gray)Druce	...	..	..	..	..	..	A2	..	..	..	6
AS	Helipterum manglesii (Lindley)F. Muell. ex Benth.	..A	..	..	..	..	..	C3	..	..	..	4,5
AS	Helipterum pygmaeum (DC.)Benth.	P.P	..	..	C2	..	B3	B3	..	B3	..	4,5
AS	Helipterum pyrethrum (Steetz)Benth.	...	3K	..	..	A2	..	..	..	..	..	4
AS	Helipterum tenellum Turcz.	P.P	..	..	..	..	..	..	..	B4	..	6
AS	Hyalochlamys globifera A. Gray	P.	..	..	..	..	..	B3	..	..	..	2,5

Appendix 1 (continued). Flora List

LF		RES		LANDFORM									DIS
		FPS	CS	B	D	F1	F2	G	L	M	S		
AS	*Hypochaeris glabra L.	..A	..	..	D2	D2	C2	D2	E2	..	..	7
AS	Millotia myosotidifolia (Benth.)Steetz	...	..	..	..	..	B2	..	..	..	..	6
AS	Millotia tenuifolia Cass. var. tenuifolia	PAP	..	..	..	..	..	C3	..	B2	..	6
AS	Myriocephalus rhizocephalus (DC.)Benth.	...	..	..	..	..	..	A2	..	..	..	6
DS	Olearia ciliata (Benth.)F. Muell. ex Benth. var. ciliata	..P	..	..	..	..	..	C2	..	B1	..	6
DS	Olearia exiguifolia (F. Muell.)F. Muell. ex Benth.	...	..	..	..	..	..	C2	..	..	..	6
DS	Olearia homolepis (F. Muell.)F. Muell. ex Benth.	...	..	..	..	..	B1	..	..	..	..	2,5
DS	Olearia muelleri (Sonder)Benth.	AAP	..	..	..	..	..	D4	..	..	..	6
DS	Olearia muricata (Steetz)Benth.	...	..	..	..	..	..	B2	..	..	..	4
DS	Olearia aff. muricata (Steetz)Benth. (MAB 1422)	...	..	..	..	..	..	A2	..	..	..	1
DS	Olearia ramosissima (DC.)Benth.	P..	..	..	..	..	..	C3	..	..	..	2,5
SS	Olearia revoluta F. Muell. ex Benth.	PA.	..	..	..	..	..	B2	B2	..	A2	4,5
DS	Olearia sp. A (MAB 1792)	...	3E	..	..	..	A2	..	..	..	..	2
AS	Podolepis auriculata DC.	...	..	..	..	..	..	A2	..	..	..	4
HP	Podolepis capillaris (Steetz)Diels	PAP	..	..	..	..	..	C2	..	C3	..	6
AS	Podolepis gracilis (Lehm.)R.A. Graham	...	..	..	..	..	..	A2	..	..	..	4
AS	Podolepis lessonii (Cass.)Benth.	P.P	..	..	..	..	..	..	C3	..	..	6
HP	Podolepis microcephala Benth.	...	3R	..	..	..	..	..	..	A2	..	5
AS	Podotheca angustifolia (Labill.)Less.	PP.	..	..	..	..	..	..	C2	..	..	6
AS	Podotheca gnaphalioides R.A. Graham	...	..	..	..	..	..	..	A2	..	..	4,5
AS	Pogonolepis stricta Steetz	..P	..	..	..	..	..	..	B3	B3	..	5
AS	*Pseudognaphalium luteo-album (L.)Hilliard & B.L. Burtt	...	..	..	B1	..	..	C1	..	..	..	7
AS	Quinetia urvillei Cass.	P..	..	..	..	B1	..	..	D3	..	..	6
AS	Rutidosia multiflora (Nees)Robinson	...	..	..	..	..	..	..	D4	B3	..	6
AS	Scyphocaroonis major (Turcz.)Druce	P.P	..	..	..	..	..	..	B3	D3	..	6
AS	Senecio glossanthus (Sonder)Belcher	PAP	..	..	C2	..	..	C2	A2	..	..	6
AS	Senecio lautus G. Forster ex Willd. ssp. dissectifolius Ali	...	..	..	..	..	..	..	C3	..	..	6
AS	Senecio quadridentatus Labill.	PP.	..	..	..	..	..	B1	..	..	B1	6
AS	Siloxerus pygmaeus (A. Gray)P.S. Short	..P	..	..	..	..	..	..	B2	D3	..	4,5
AS	*Sonchus oleraceus L.	..P	..	..	C1	..	..	C1	B1	..	..	7
AS	*Ursinea anthemoides (L.)Poirot	..P.	..	..	..	..	..	..	D3	..	..	7
DS	Vittadinia australasica (Turcz.)N. Burb. var. australasica	...	..	..	..	..	..	B2	..	..	..	6
DS	Vittadinia dissecta (Benth.)N. Burb. var. hirta N. Burb.	...	..	..	..	..	..	B2	..	..	..	4,5
AS	Waitzia aurea (Benth.)Steetz	PPP	..	..	..	..	D3	D3	..	..	..	4,5
AS	Waitzia citrina (Benth.)Steetz	..P	..	..	..	..	..	D3	B2	..	..	6
AS	Waitzia paniculata (Steetz)F. Muell. ex Benth.	...	..	..	..	..	..	B2	B3	..	..	4
AS	Genus indet. A (KRN 8559)	..PP	3KC	..	..	..	..	..	..	B3	..	2,5

Appendix 2. Taxa with important conservation values

This list highlights those taxa in Appendix 1 requiring implementation of conservation measures to ensure their survival. Some taxa listed require additional surveys to better understand their distribution and biology. Conservation status codes follow Leigh *et al.* (1981) - see Appendix 1.

Taxon	Endangered	Vulnerable	Rare	Poorly known
<i>Acacia</i> aff. <i>bidentata</i> B	.	2VCP	.	.
<i>Acacia</i> aff. <i>cochlearis</i>	.	.	.	2K
<i>Acacia</i> <i>crassuloides</i>	.	3VCA	.	.
<i>Acacia</i> <i>excentrica</i>	.	.	.	3K
<i>Acacia</i> <i>pritzeliana</i>	.	.	3RCP	.
<i>Acacia</i> <i>sorophylla</i>	.	3VCP	.	.
<i>Acacia</i> sp. B	.	2V	.	.
<i>Acacia</i> sp. E	.	3VCP	.	.
<i>Acacia</i> sp. I	.	2VCP	.	.
<i>Acacia</i> sp. K	.	.	3R	.
<i>Acacia</i> sp. N	.	1V	.	.
<i>Acacia</i> sp. O	2E	.	.	.
<i>Acacia</i> sp. P	3E	.	.	.
<i>Acacia</i> sp. R	1E	.	.	.
<i>Acacia</i> sp. U	.	.	.	2KCP
<i>Acacia</i> sp. V	.	.	.	3KCP
<i>Acacia</i> sp. W	2E	.	.	.
<i>Acacia</i> sp. X	1E	.	.	.
<i>Adenanthos</i> <i>ileticos</i>	2E	.	.	.
<i>Andersonia</i> <i>macranthera</i>	2EC	.	.	.
<i>Angasomyrtus</i> <i>salina</i>	.	2VCP	.	.
<i>Aotus</i> sp. A	1EC	.	.	.
Asteraceae genus indet. A	.	.	.	3KCP
<i>Baeckea</i> <i>crassifolia</i> var. <i>isosandra</i>	.	.	3RC	.
<i>Banksia</i> <i>blechnifolia</i>	.	3VCP	.	.
<i>Banksia</i> <i>pilostylis</i>	.	3VCP	.	.
<i>Beaufortia</i> aff. <i>empetrifolia</i>	.	3V	.	.
<i>Billardiera</i> <i>mollis</i>	.	2V	.	.
<i>Boronia</i> aff. <i>fabianoides</i>	.	3V	.	.
<i>Boronia</i> <i>oxyantha</i> var. <i>brevicalyx</i>	.	.	3RC	.
<i>Brachyloma</i> sp. A	.	.	.	3K
<i>Cassyltha</i> <i>micrantha</i>	.	3VCP	.	.
<i>Chamelaucium</i> sp. A	.	2V	.	.
<i>Chorizema</i> sp. A	.	2V	.	.
<i>Comesperma</i> <i>acerosum</i>	.	3V	.	.
<i>Conostephium</i> <i>drummondii</i>	.	.	3RCP	.
<i>Conostephium</i> sp. A	.	.	.	3K
<i>Conostylis</i> <i>phathyrantha</i>	.	.	3R	.
<i>Conostylis</i> sp. A	2E	.	.	.
<i>Cypselocarpus</i> <i>haloragoides</i>	.	3VC	.	.
<i>Dampiera</i> <i>carinata</i>	.	.	3RCP	.
<i>Dampiera</i> <i>trigona</i>	.	.	3R	.
<i>Darwinia</i> sp. F	1EC	.	.	.
<i>Darwinia</i> sp. G	1E	.	.	.
<i>Daviesia</i> sp. B	.	.	.	3KCP
<i>Daviesia</i> sp. C	1EC	.	.	.
<i>Daviesia</i> sp. E	.	3VCP	.	.
<i>Dillwynia</i> <i>acerosa</i>	.	.	.	3K
<i>Dillwynia</i> <i>divaricata</i>	.	.	.	3K
<i>Dodonaea</i> <i>glandulosa</i>	.	2VCP	.	.
<i>Drosera</i> sp. A	.	.	3R	.
<i>Dryandra</i> aff. <i>pteridifolia</i>	.	3VCP	.	.
<i>Elachanthus</i> <i>pusillus</i>	.	.	.	3K

Appendix 2 (continued). Taxa with important conservation values

Taxon	Endangered	Vulnerable	Rare	Poorly known
<i>Eremophila denticulata</i>	.	.	3RCP	.
<i>Eremophila dichroantha</i>	.	.	3RCA	.
<i>Eremophila serpens</i>	.	2V	.	.
<i>Eremophila</i> aff. <i>serpens</i>	3E	.	.	.
<i>Eriostemon fitzgeraldii</i>	.	.	3RCP	.
<i>Eriostemon</i> aff. <i>thryptomenoides</i>	2E	.	.	.
<i>Eucalyptus angustissima</i>	.	.	2RC	.
<i>Eucalyptus</i> aff. <i>angustissima</i>	2E	.	.	.
<i>Eucalyptus deflexa</i>	.	3VCP	.	.
<i>Eucalyptus dielsii</i>	.	3VCP	.	.
<i>Eucalyptus</i> aff. <i>diptera</i> A	.	.	2R	.
<i>Eucalyptus discreta</i>	.	.	3RC	.
<i>Eucalyptus forrestiana</i> ssp. <i>forrestiana</i>	.	3VCA	.	.
<i>Eucalyptus forrestiana</i> ssp. <i>dolichorhyncha</i>	2ECP	.	.	.
<i>Eucalyptus forrestiana</i> ssp. <i>stoatei</i>	2E	.	.	.
<i>Eucalyptus halophila</i>	.	2VCP	.	.
<i>Eucalyptus merrickiae</i>	.	3V	.	.
<i>Eucalyptus</i> aff. <i>micranthera</i>	.	.	.	2K
<i>Eucalyptus nutans</i>	.	.	2RC	.
<i>Eucalyptus ovularis</i>	.	3VCP	.	.
<i>Eucalyptus</i> sp. A	.	2V	.	.
<i>Eucalyptus</i> sp. B	1E	.	.	.
<i>Eucalyptus</i> sp. H	2E	.	.	.
<i>Eucalyptus</i> sp. I	1E	.	.	.
<i>Eucalyptus</i> sp. J	1E	.	.	.
<i>Gahnia</i> sp. A	.	.	.	2K
<i>Glyceria fluitans</i>	.	2V	.	.
<i>Gnaphalium indutum</i>	.	.	.	3KCP
<i>Gonocarpus trichostachyus</i>	.	.	.	3K
<i>Goodenia trichophylla</i>	.	.	3RCP	.
<i>Grevillea aneura</i>	.	3VCP	.	.
<i>Gyrostemon ditrigynus</i>	2E	.	.	.
<i>Gyrostemon prostratus</i>	3E	.	.	.
<i>Hakea</i> sp. A	1E	.	.	.
<i>Halgania</i> sp. A	.	2V	.	.
<i>Haloragis</i> sp. A	1E	.	.	.
<i>Heliotropium</i> sp. A	.	.	2R	.
<i>Helipterum pyrethrum</i>	.	.	.	3K
<i>Hemigenia</i> aff. <i>eutaxioides</i>	.	.	.	3K
<i>Hibbertia andrewsiana</i>	.	.	3RC	.
<i>Hydrocotyle medicaginoides</i>	.	.	3RCP	.
<i>Hypoxis</i> sp. A	.	2V	.	.
<i>Isolepis</i> sp. A	2E	.	.	.
<i>Isopogon tridens</i>	.	3V	.	.
<i>Kennedia beckxiana</i>	.	.	2R	.
<i>Kunzea baxteri</i>	.	.	3RCP	.
<i>Lawrencia diffusa</i>	.	3VCP	.	.
<i>Lechenaultia</i> sp. A	.	3V	.	.
<i>Lepidosperma</i> sp. B	.	.	.	3K
<i>Leptospermum maxwellii</i>	.	.	3R	.
<i>Leucopogon</i> aff. <i>allittii</i>	2E	.	.	.
<i>Leucopogon bossiaea</i>	.	.	.	3KCP
<i>Leucopogon brevicuspis</i>	.	.	.	3KCP
<i>Leucopogon opposens</i>	.	.	3R	.
<i>Leucopogon woodsii</i>	.	.	3RC	.
<i>Leucopogon</i> sp. E	1E	.	.	.
<i>Leucopogon</i> sp. G	1E	.	.	.

Appendix 2 (continued). Taxa with important conservation values

Taxon	Endangered	Vulnerable	Rare	Poorly known
<i>Leucopogon</i> sp. I	1E	.	.	.
<i>Leucopogon</i> sp. M	.	1V	.	.
<i>Leucopogon</i> sp. N	.	3V	.	.
<i>Melaleuca cliffortioides</i>	.	.	3RCP	.
<i>Melaleuca</i> aff. <i>nesophila</i>	.	.	3RCA	.
<i>Melaleuca sparsiflora</i>	.	.	.	2K
<i>Melaleuca</i> sp. C	.	.	.	3KCP
<i>Melaleuca</i> sp. N	1E	.	.	.
<i>Microcorys virgata</i>	.	.	.	3K
<i>Myoporum beckeri</i>	.	.	.	2KCP
<i>Myoporaceae</i> genus indet.	2E	.	.	.
<i>Olearia</i> sp. A	3E	.	.	.
<i>Persoonia tortifolia</i>	.	.	.	2K
<i>Persoonia</i> sp. A	.	.	3RCP	.
<i>Podolepis microcephala</i>	.	.	3R	.
<i>Pomaderris intangenda</i>	.	3V	.	.
<i>Prostanthera</i> sp. A	1E	.	.	.
<i>Pultenaea arida</i>	.	.	3RCA	.
<i>Pultenaea</i> sp. B	.	2VCP	.	.
<i>Pultenaea</i> sp. C	.	3V	.	.
<i>Pultenaea</i> sp. D	.	2V	.	.
<i>Pultenaea</i> sp. E	1E	.	.	.
<i>Pultenaea</i> sp. H	1E	.	.	.
<i>Ricinocarpos trichophorus</i>	.	.	2VCP	.
<i>Scaevola</i> sp. A	1E	.	.	.
<i>Schoenus caespitius</i>	.	.	3RCP	.
<i>Schoenus</i> sp. A	.	.	.	3K
<i>Siegfriedia darwinioides</i>	.	3VC	.	.
<i>Spyridium oligocephalum</i>	.	.	3RCP	.
<i>Spyridium</i> sp. A	.	.	.	3K
<i>Spyridium</i> sp. B	.	.	.	3KC
<i>Stachystemon</i> sp. A	1E	.	.	.
<i>Thysanotus parviflorus</i>	.	3VCP	.	.
<i>Trachymene croniniana</i>	.	3V	.	.
<i>Triglochin muelleri</i>	.	.	.	3K
<i>Triodia concinna</i>	.	.	.	3K
<i>Verticordia</i> aff. <i>drummondii</i>	.	.	3RCP	.
<i>Wilsonia rotundifolia</i>	.	.	3RCP	.
<i>Wurmbea sinora</i>	.	.	.	3K



115°

120°

125°

PHYTOGEOGRAPHIC REGIONS

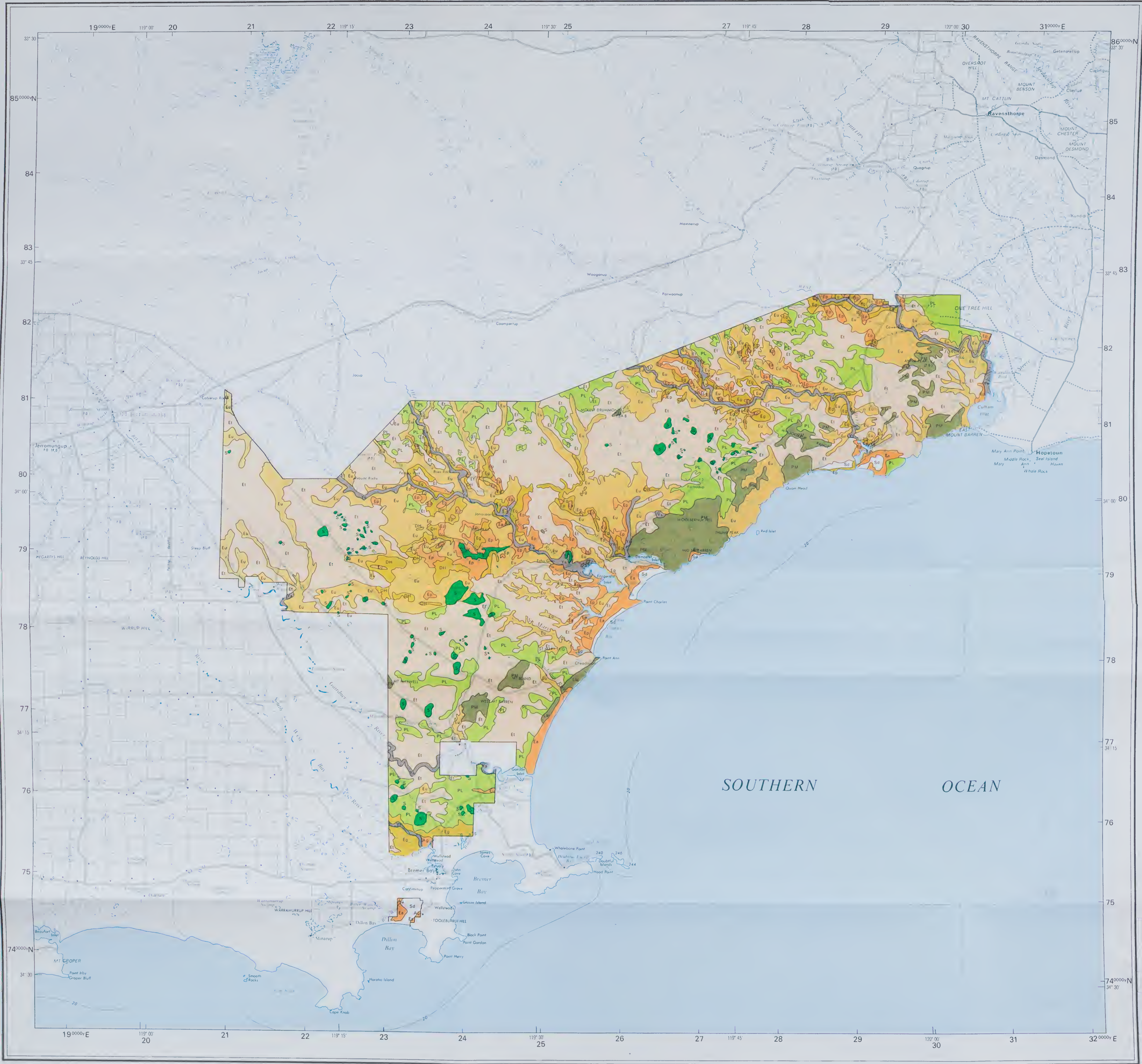
- PROVINCE
 ——— DISTRICT
 ——— SUBDISTRICT

0 500
km



PHYTOGEOGRAPHIC REGIONS OF WESTERN AUSTRALIA DETERMINED BY VEGETATION MAPPING
(from Beard, 1980, Western Australia Herbarium Research Notes No. 3.).

FITZGERALD RIVER NATIONAL PARK



VEGETATION SURVEY TRAVERSES



LEGEND

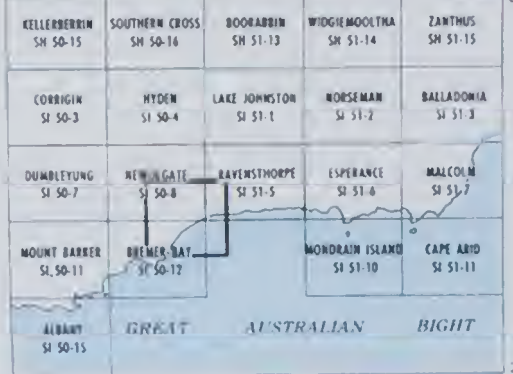
VEGETATION STRUCTURE

LIFE FORM AND HEIGHT OF TALLEST STRATUM	FORMATION	PROJECTIVE FOLIAGE COVER OF TALLEST STRATUM, PER CENT
		70-100 30-70 10-30 BELOW 10
TREES (Above 30 metres)	High closed forest	
	High open forest	
	High woodland	
	High open woodland	
TREES (10 to 30 metres)	Closed forest	
	Open forest	
	Woodland	
	Open woodland	
TREES (Below 10 metres)	Low closed forest	
	Low open forest	
	Low woodland	
	Low open woodland	
SHRUBS (Above 2 metres)	Closed scrub	
	Open scrub	
	High Shrubland	
	High open shrubland	
SHRUBS (Below 2 metres)	Closed heath	
	Open heath	
	Low shrubland	
	Low open shrubland	
HERBS	Closed herbland	
	Herbland	
	Open herbland	
HUMMOCK GRASSES	Hummock Grassland	
	Open Hummock Grassland	
BARREN	Sand Dunes	
CLEARED LAND		

PLANT ASSOCIATIONS

<i>Agonis flexuosa</i>	Ag
<i>Dryandra</i> spp.— <i>Hakea</i> spp.— <i>Casuarina</i> spp.	DH
<i>Eucalyptus gardneri</i> — <i>E. conglobata</i> — <i>E. nutans</i>	Eg
<i>E. platypus</i> — <i>E. gardneri</i>	Ep
<i>E. angulosa</i> — <i>E. platypus</i> var. <i>heterophylla</i> — <i>Melaleuca nesophila</i>	Ea
<i>E. tetragona</i> — <i>E. buxifolium</i> — <i>Banksia baxteri</i> — <i>B. attenuata</i>	Et
<i>E. uncinata</i> — <i>E. redunca</i> — <i>E. incrassata</i> — <i>E. tetragona</i>	Eu
Leguminosae—Myrtaceae	(Mixed Coastal Heath) LM
Proteaceae—Leguminosae—Myrtaceae	(Mixed Sand Heath) PL
Sedgelands and Swamp Complexes	S
<i>Eucalyptus occidentalis</i> — <i>E. spp.</i>	Ys
Proteaceae—Myrtaceae (Mixed Rock Heath)	PM
Waterhole, water tank, dam; dry lake	
Lake, river or stream perennial	
Lake, river or stream intermittent	
Dam or weir, falls, rapids	
Drain or ditch perennial, intermittent	
Spring perennial, intermittent, ricefields	
Marsh or swamp; mangroves	

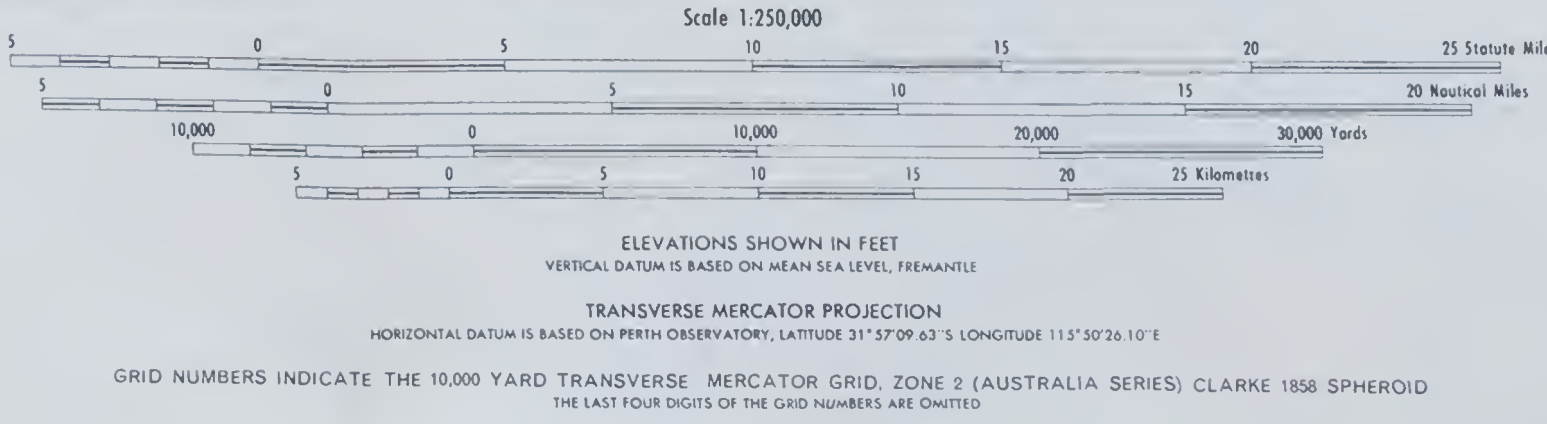
LOCATION DIAGRAM



VEGETATION
FITZGERALD RIVER NATIONAL PARK
WESTERN AUSTRALIA

Compiled by T. E. H. APLIN, in accordance with the requirements of the Western Australian Vegetation Survey Committee from aerial photography flown 1965 and 1969, and field surveys carried out by the author from July, 1970 to January, 1971. Drawings prepared under the direction of the Surveyor General, Department of Lands and Surveys, Western Australia, on base maps made available by courtesy of the Director of National Mapping, Department of National Development, Canberra, and printed by the Government Printer of Western Australia.

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